

**From:** Elam, Terry [terry.elam@cbi.com]  
**Sent:** Monday, August 4, 2014 2:25 PM  
**To:** YOUNG, KYLE MATTHEW  
**Subject:** FW: Friday presentation  
**Attachments:** 2014-08-01 IPS Review-VCS - 08-01-14.pdf

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FYI



**Terry W. Elam**  
 Project Controls Manager  
 Project Controls  
 Power  
 Tel: + 803 932 5454  
 Cell: + 704 307 7935  
[terry.elam@CBI.com](mailto:terry.elam@CBI.com)

CB&I  
 14368 State Hwy 213  
 PO Box 130  
 Jenkinsville, SC 29065  
 USA  
[www.CBI.com](http://www.CBI.com)

**From:** Tibbetts, Aaron  
**Sent:** Monday, August 04, 2014 11:00 AM  
**To:** Hollenbach, Kenneth W; Elam, Terry  
**Subject:** RE: friday presentation

Ken, attached is the presentation from Friday.

Regards,

Aaron



**Aaron B. Tibbetts**  
 Scheduling Manager  
 Project Controls  
 Power  
 Tel: +1 803 932 5530  
 Fax: +1 803 932 5669  
[aaron.tibbetts@cbi.com](mailto:aaron.tibbetts@cbi.com)

CB&I  
 VC Summer New Nuclear Project  
 14368 State Hwy. 213  
 Jenkinsville, SC 29065  
 USA

[www.CBI.com](http://www.CBI.com)

**From:** Hollenbach, Kenneth W  
**Sent:** Monday, August 04, 2014 10:58 AM  
**To:** Elam, Terry; Tibbetts, Aaron  
**Subject:** friday presentation

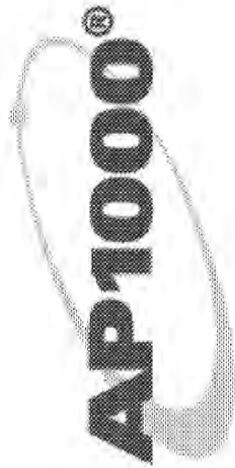
Can one of you send me a PDF of the Friday presentation  
Thanks

**From:** SMITH, ABNEY A JR [<mailto:SASMITH@scana.com>]  
**Sent:** Monday, August 04, 2014 10:44 AM  
**To:** Hollenbach, Kenneth W  
**Subject:**

Ken, Steve asked if we could get electronic copy of your presentation on Friday. You can send to me.  
Thanks.

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

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# VC Summer Integrated Project Schedule Review August 1, 2014

Nothing contained in this presentation constitutes a waiver of Contractor's right and remedies under the EPC Agreement.  
Contractor reserves all rights and remedies.

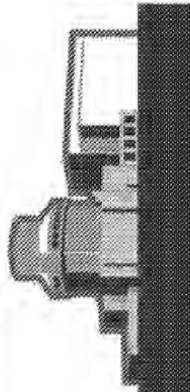


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## Summary

- This presentation of the Integrated Project Schedule (IPS) Scenarios is intended to begin a Period of Review with the Owner and the IPS will not be official until this review is Complete
  - Unit 2 – Substantial Completion June 2019 (Impacted/Partially Accelerated)
    - Includes substantial acceleration efforts to date
    - 5X10 construction work schedule with selective extended work periods for near term walls, Shield Building concrete layers up to "G" and Containment layer "1A" concrete & structural/mechanical modules
    - Fabrication and delivery of the Shield Building panels are based on the delivery dates provided by the vendor
    - Critical Assumptions
      - Fabrication and delivery of Main Steam/Feed Water penetration module will support construction needs
      - Issues resolved and information received to support Aux Building Wall 11 Main Steam/feed Water Module
  - Unit 2 – Substantial Completion December 2018 (Accelerated)
    - All items from above apply
    - Accelerate Shield Building design/fabrication /erection such that the Shield Building and Containment are parallel critical paths.
    - CA01 sub-module deliveries support the set date March of 2015
    - Additional Engineering/Procurement/Construction /Licensing Items have to be accelerated

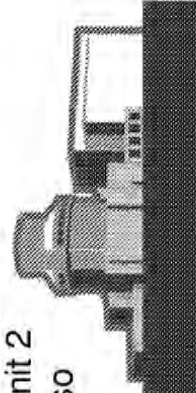


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## Summary (Cont.)

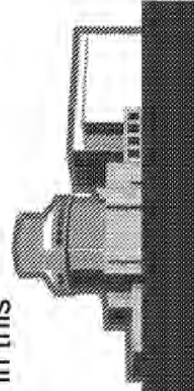
- Unit 2 & 3 (Potential Additional Acceleration)
  - Potential for additional optimization may be possible with support from the owner, for example, in the areas of pre-operational and startup testing.
  - Opportunities during bulk construction are limited
  - Work with SCANA to identify opportunities starting at Integrated Flush through Power Ascension
  - Support from Licensing and NRC may be required due to the compression
- Unit 3 – Substantial Completion 12 month offset after Unit 2 Substantial Completion June 2020
  - CA05, CA20 and CA01 sub-module deliveries continue to support a 12 month Substantial Completion lag from Unit 2 schedule
  - Long lead procurements support site needs (mechanical modules, bellows, MS/FW penetrations panels, etc.)
  - Shield Bldg. panel deliveries support a June 2020 Substantial Completion schedule
  - Substantial Completion December 2019
    - Shield Building activities to be accelerated comparable to Unit 2
    - Structural Module deliveries will support the acceleration also



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# Critical Path

- Critical Path Scenarios
  - VC Summer Unit 2 – Substantial Completion June 2019 (Impacted/Partially Accelerated)
    - The critical path proceeds through shield building wall panel deliveries from NNI into erection of the shield building walls and installation of the air intake structure, shield wall tension ring, top hat, shield building roof and setting of the PCS tank module on the roof. The path continues to operational testing through Fuel Load, continuing through Power Ascension, 100 percent power, then Substantial Completion.
  - VC Summer Unit 2 – Substantial Completion December 2018 (Accelerated)
    - The critical path proceeds through CA01 sub module deliveries from Lake Charles (LC) through the onsite assembly and setting of CA01 and civil commodity installation in containment. The path proceeds through setting the reactor vessel, RCS piping and installation of SG's (and bulk commodities in general). The path continues to operational testing through Fuel Load, continuing through Power Ascension, 100 percent power then Substantial Completion.
    - The Shield Building continues to be a near term competing critical path in this schedule.



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## Critical Path (Cont.)

- VC Summer Unit 3 – Substantial Completion 12 months after Unit 2 Substantial Completion
  - The critical path proceeds through shield building wall panel deliveries from NNI into erection of the shield building walls and installation of the air intake structure, shield wall tension ring, top hat, shield building roof and setting of the PCS tank module on the roof. The path continues to operational testing through Fuel Load, continuing through Power Ascension, 100 percent power, then Substantial Completion.



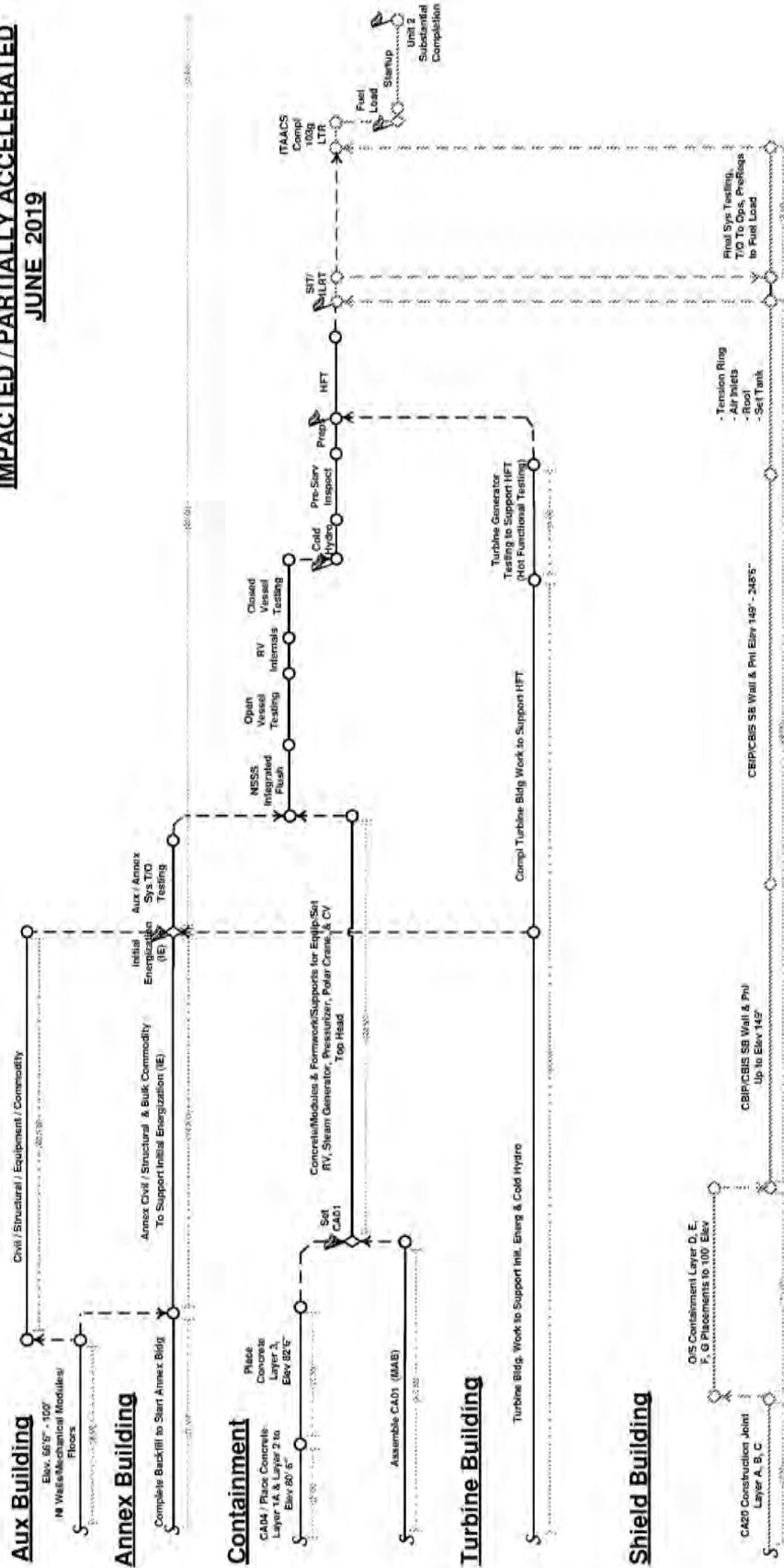
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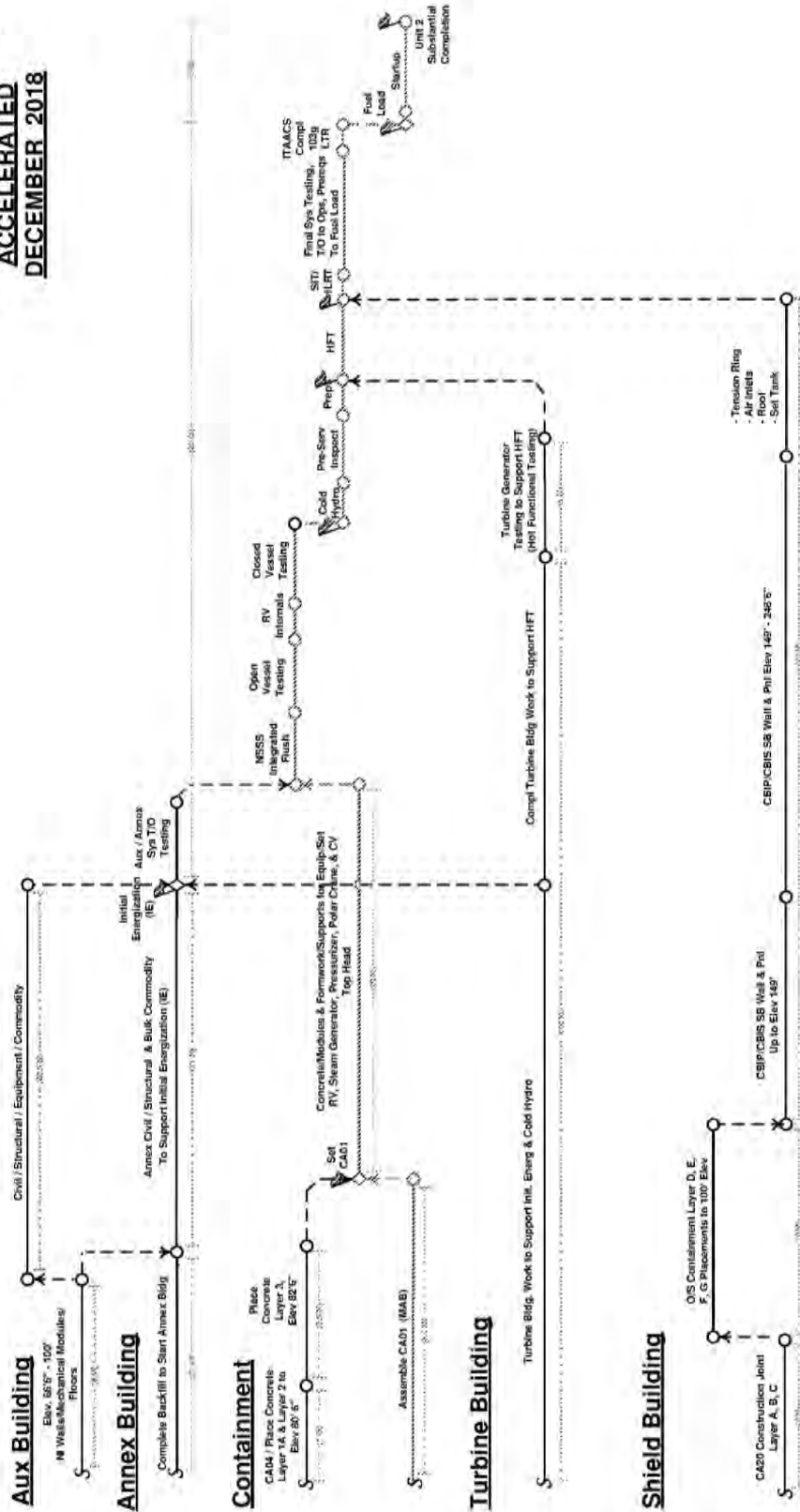
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**UNIT 2**  
**V.C.SUMMER OVERVIEW**  
**IMPACTED / PARTIALLY ACCELERATED**  
**JUNE 2019**

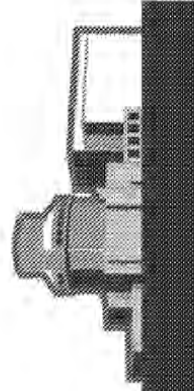


**UNIT 2**  
**V.C.SUMMER OVERVIEW**  
**ACCELERATED**  
**DECEMBER 2018**



# Assumptions

- Overall Project
  - Engineering, Procurement, Construction and Startup resources will be available as planned.
- Engineering
  - Assumes no additional scope of field work resulting from remaining engineering due to regulatory changes
- Licensing
  - Known Licensing impacts will be mitigated
  - SCE&G Incorporation – The owner will incorporate necessary licensing changes in a manner that does not delay the IPS
  - The PAR process is implemented to support construction as allowed by law

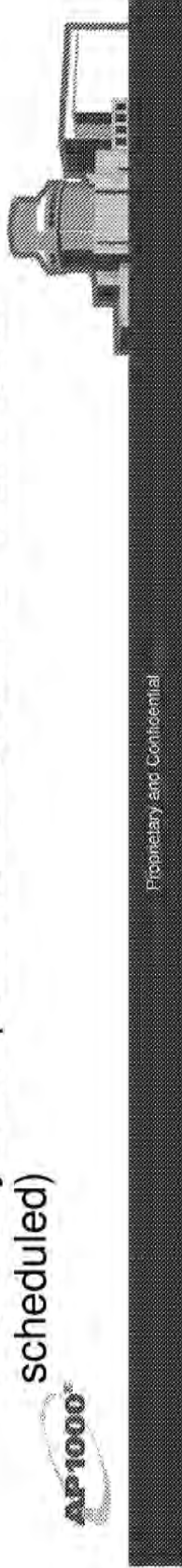


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## Assumptions (Cont.)

- Start-up & Testing
  - Temporary Modifications will be used as required for Start-up and Testing
  - Owner's programs are available to support Component & Preoperational Testing
  - Owner supports Joint Test Group review of test documents
  - Owner program implementation during preoperational testing does not impact test schedule
  - Digital test strategy and associated implementation plan acceptance by NRC
  - Alternate NDE methods can be used for CPT/ILRT instead of soap bubble test. (Extended duration for bubble testing followed by baffle plate installation after CPT/ILRT is not scheduled)

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## Assumptions (Cont.)

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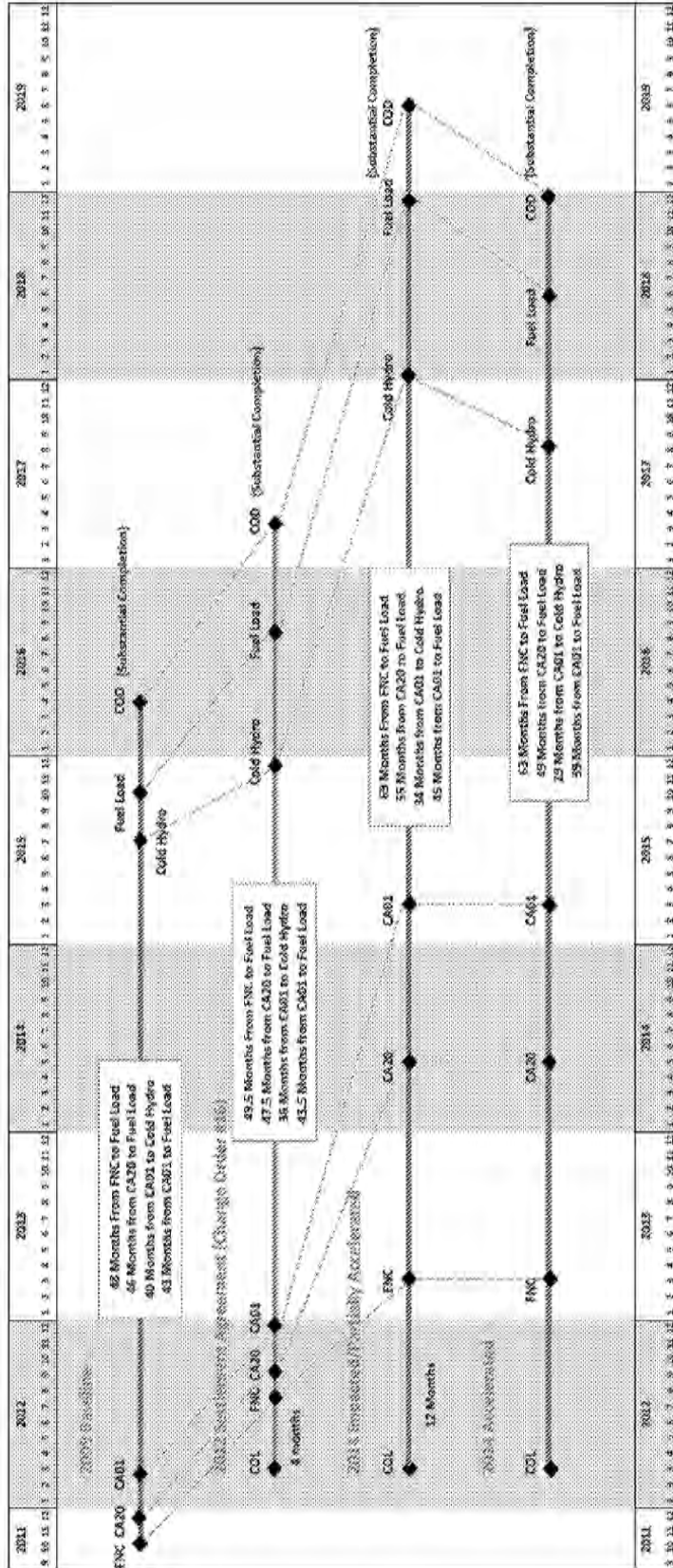
- Start-up & Testing
  - NRC approval of Simulator and qualified operators available in time prior to Fuel Load
  - Licensing/Owner/NRC has enough time for removing FOAK tests out of Unit 3 License prior to required performance
  - Duration between all ITAAC complete and NRC issuance of 103.g letter is sufficient





# VC Summer IPS History

Unit 2 Integrated Project Schedule Historical Comparison From Baseline to Current



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**BLRA Milestone Tracking**  
**Impacted/Partially Accelerated Schedule - U2 COD: 13-Jun-19**

11

SCANA\_RP0641593

Tracking ID	Primavera Activity ID	Milestone Description	Reset Milestone Date	Month End Milestone Date	New Date	Actual Completion Date	Delta Months from Reset Milestone Date	Internal Notes
88	2CCCT107XX017	Set Nuclear Island structural module CA03 for Unit 2	26-Jun-13	4-Nov-15			+29	
92	2CMCT084XX086	Start containment large bore pipe supports for Unit 2	28-Jun-13	13-Jun-14			+12	Unit 2 Large Bore Pipe Supports started on June 13th, 2014
97	2CCCT135XX110	Start concrete fill of Nuclear Island structural modules CA01 and CA02 for Unit 2	3-Apr-14	20-May-16			+25	
99	P0WXXXXPSCM709	Refueling Machine Fabricator Notice to Contractor of Satisfactory Completion of Factory Acceptance Test - Unit 2	30-Nov-13	30-Nov-14			+12	Delay due to schedule refinement and schedule re-sequencing.
100	P0WXXXXPSCM710	Deliver Reactor Vessel Internals to Port of Export - Unit 2	31-Jan-14	28-Feb-15			+13	Delay due to subsequent delay in predecessor schedule activities.
101	2CMCT205XX020	Set Unit 2 Containment Vessel #3	24-Apr-14	10-Mar-16			+23	
102	P0WXXXXPSCM711	Steam Generator - Contractor Acceptance of Equipment at Port of Entry - Unit 2	31-Jul-13	31-Oct-14			+15	Delay due to subsequent delay in predecessor schedule activities.
104	P0WXXXXPSCM713	Pressurizer Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 3	31-Mar-14	30-Sep-14			+6	Delay due to subsequent delay in predecessor schedule activities.
105	P0WXXXXPSCM714	Polar Crane - Shipment of Equipment to Site - Unit 2	31-Jan-14	31-Jul-15			+18	Delay due to schedule refinement and schedule re-sequencing.
107	2CMCT100RX130	Set Unit 2 Reactor Vessel	23-Jun-14	27-May-16			+23	
108	P0WXXXXPSCM715	Steam Generator Fabricator Notice to Contractor of Completion of 2nd Channel Head to Tubesheet Assembly Welding - Unit 3	31-Dec-13	30-Nov-14			+11	Delay due to subsequent delay in predecessor schedule activities.
109	P0WXXXXPSCM716	Reactor Coolant Pump Fabricator Notice to Contractor of Final Stator Assembly Completion - Unit 3	31-Aug-14	31-Mar-15			+7	Delay associated with supplier design changes and subsequent delay in predecessor schedule activities
110	P0WXXXXPSCM717	Reactor Coolant Pump - Shipment of Equipment to Site (2 Reactor Coolant Pumps) - Unit 2	31-Oct-13	31-Dec-15			+26	Delay associated with supplier design changes and subsequent delay in predecessor schedule activities
112	2CMCT084SG127	Set Unit 2 Steam Generator	23-Oct-14	27-Jul-16			+21	
114	P3WXXXXPSCM348	Complete Unit 3 Steam Generator Hydrotest at fabricator	28-Feb-14	28-Feb-15			+12	Delay due to schedule refinement and schedule re-sequencing.
116	2CMCT118RC135	Set Unit 2 Pressurizer Vessel	16-May-14	13-Jun-16			+25	
117	P0WXXXXPSCM720	Reactor Coolant Pump Fabricator Notice to Contractor of Satisfactory Completion of Factory Acceptance Test - Unit 3	28-Feb-15	30-Sep-16			+19	Delay associated with supplier design changes and subsequent delay in predecessor schedule activities
118	P0WXXXXPSCM721	Deliver Reactor Vessel Internals to Port of Export - Unit 3	30-Jun-15	28-Feb-16			+8	
119	P0WXXXXPSCM722	Main Transformers Fabricator Issue PO for Material - Unit 3	28-Feb-15	2-Feb-15			-	
120	2CMCT118RN195	Complete welding of Unit 2 Passive Residual Heat Removal System piping	5-Feb-15	31-Oct-16			+20	
121	P0WXXXXPSCM723	Steam Generator - Contractor Acceptance of Equipment at Port of Entry - Unit 3	30-Apr-15	30-Nov-15			+7	Delay due to subsequent delay in predecessor schedule activities.
122	P0WXXXXPSCM724	Refueling Machine - Shipment of Equipment to Site - Unit 3	28-Feb-15	6-Nov-15			+9	Delay due to schedule refinement and schedule re-sequencing.
123	2CMCT239MH130	Set Unit 2 Polar Crane	9-Jan-15	21-Nov-16			+22	

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**BLRA Milestone Tracking**  
**Impacted/Partially Accelerated Schedule - U2 COD: 13-Jun-19**

12

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Tracking ID	Primavera Activity ID	Milestone Description	Reset Milestone Date	Month End Milestone Date	New Date	Actual Completion Date	Delta Months from Reset Milestone Date	Internal Notes
124	P0WXXXPSCM725	Reactor Coolant Pumps - Shipment of Equipment to Site - Unit 3	30-Jun-15	31-Oct-16			+16	Delay associated with supplier design changes and subsequent delay in predecessor schedule activities
125	P0WXXXPSCM726	Main Transformers Ready to Ship - Unit 3	31-Jul-15	31-May-15			-2	
126	P0WXXXPSCM727	Spent Fuel Storage Rack - Shipment of Last Rack Module - Unit 3	31-Jul-14	15-Sep-14			+2	
127	2CEAU066XX1145	Start electrical cable pulling in Unit 2 Auxiliary Building	14-Aug-13	25-Oct-16			+38	
128	2VSMILPM00052	Complete Unit 2 Reactor Coolant System cold hydro	22-Jan-16	14-Feb-18			+25	
129	2VSIPT00458	Activate class 1E DC power in Unit 2 Auxiliary Building.	15-Mar-15	27-May-17			+26	
130	2VSMILPM00076	Complete Unit 2 hot functional test.	3-May-16	16-Jun-18			+25	
131	3CMCT205XX020	Install Unit 3 ring 3 for containment vessel	25-Aug-15	4-Aug-16			+12	
132	2VSCSFL11235	Load Unit 2 nuclear fuel	15-Sep-16	11-Dec-18			+27	
133	C1009TN072	Unit 2 Substantial Completion	15-Mar-17	13-Jun-19			27	
134	3CMCT100RX130	Set Unit 3 Reactor Vessel	22-Oct-15	20-Mar-17			+17	
135	3CMCT084SG127	Set Unit 3 Steam Generator #2	25-Feb-16	18-Jul-17			+17	
136	3CMCT118RC135	Set Unit 3 Pressurizer Vessel	16-Jul-15	3-Apr-17			+21	
137	3CMCT118RN195	Complete welding of Unit 3 Passive Residual Heat Removal System piping	16-Jun-16	14-Nov-17			+17	
138	3CMCT239MH130	Set Unit 3 polar crane	9-May-16	15-Sep-17			+16	
139	3CC182548L970	Start Unit 3 Shield Building roof slab rebar placement	26-May-16	14-Feb-17			+9	
140	3CEAU066XX1145	Start Unit 3 Auxiliary Building electrical cable pulling	7-Nov-14	8-Sep-17			+34	
141	3VSIPT00458	Activate Unit 3 Auxiliary Building class 1E DC power	15-May-16	5-May-18			+24	
142	3VSMILPM00052	Complete Unit 3 Reactor Coolant System cold hydro	22-Mar-17	10-Feb-19			+23	
143	3VSMILPM00076	Complete Unit 3 hot functional test	3-Jul-17	13-Jun-19			+23	
144	3VSCSFL11235	Complete Unit 3 nuclear fuel load	15-Nov-17	5-Dec-19			+25	
145	3VSCS100PP340	Begin Unit 3 full power operation	8-Apr-18	18-May-20			+25	
146	3VSCSPHHR110	Unit 3 Substantial Completion	15-May-18	7-Jun-20			+25	

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**BLRA Milestone Tracking**  
**Accelerated Schedule - U2 COD: 05-Dec-18**

13

SCANA\_RP0641595

Tracking ID	Primavera Activity ID	Milestone Description	Reset Milestone Date	Month End Milestone Date	New Date	Actual Completion Date	Delta Months from Reset Milestone Date	Internal Notes
88	2CCCT107XX017	Set Nuclear Island structural module CA03 for Unit 2	26-Jun-13	28-Aug-15			+26	
92	2CMCT084XX086	Start containment large bore pipe supports for Unit 2	28-Jun-13	13-Jun-14			+12	Unit 2 Large Bore Pipe Supports started on June 13th, 2014
97	2CCCT135XX110	Start concrete fill of Nuclear Island structural modules CA01 and CA02 for Unit 2	3-Apr-14	28-Feb-16			+22	
99	P0WXXXXPSCM709	Refueling Machine Fabricator Notice to Contractor of Satisfactory Completion of Factory Acceptance Test - Unit 2	30-Nov-13	30-Nov-14			+12	Delay due to schedule refinement and schedule re-sequencing.
100	P0WXXXXPSCM710	Deliver Reactor Vessel Internals to Port of Export - Unit 2	31-Jan-14	28-Feb-15			+13	Delay due to subsequent delay in predecessor schedule activities.
101	2CMCT205XX020	Set Unit 2 Containment Vessel #3	24-Apr-14	6-Jan-16			+21	
102	P0WXXXXPSCM711	Steam Generator - Contractor Acceptance of Equipment at Port of Entry - Unit 2	31-Jul-13	31-Oct-14			+15	Delay due to subsequent delay in predecessor schedule activities.
104	P0WXXXXPSCM713	Pressurizer Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 3	31-Mar-14	30-Sep-14			+6	Delay due to subsequent delay in predecessor schedule activities.
105	P0WXXXXPSCM714	Polar Crane - Shipment of Equipment to Site - Unit 2	31-Jan-14	31-Jul-15			+18	Delay due to schedule refinement and schedule re-sequencing.
107	2CMCT100RX130	Set Unit 2 Reactor Vessel	23-Jun-14	16-Mar-16			+21	
108	P0WXXXXPSCM715	Steam Generator Fabricator Notice to Contractor of Completion of 2nd Channel Head to Tubesheet Assembly Welding - Unit 3	31-Dec-13	30-Nov-14			+11	Delay due to subsequent delay in predecessor schedule activities.
109	P0WXXXXPSCM716	Reactor Coolant Pump Fabricator Notice to Contractor of Final Stator Assembly Completion - Unit 3	31-Aug-14	31-Mar-15			+7	Delay associated with supplier design changes and subsequent delay in predecessor schedule activities
110	P0WXXXXPSCM717	Reactor Coolant Pump - Shipment of Equipment to Site (2 Reactor Coolant Pumps) - Unit 2	31-Oct-13	31-Dec-15			+26	Delay associated with supplier design changes and subsequent delay in predecessor schedule activities
112	2CMCT084SG127	Set Unit 2 Steam Generator	23-Oct-14	16-May-16			+19	
114	P3WXXXXPSCM348	Complete Unit 3 Steam Generator Hydrotest at fabricator	28-Feb-14	28-Feb-15			+12	Delay due to schedule refinement and schedule re-sequencing.
116	2CMCT118RC135	Set Unit 2 Pressurizer Vessel	16-May-14	30-Mar-16			+22	
117	P0WXXXXPSCM720	Reactor Coolant Pump Fabricator Notice to Contractor of Satisfactory Completion of Factory Acceptance Test - Unit 3	28-Feb-15	30-Sep-16			+19	Delay associated with supplier design changes and subsequent delay in predecessor schedule activities
118	P0WXXXXPSCM721	Deliver Reactor Vessel Internals to Port of Export - Unit 3	30-Jun-15	28-Feb-16			+8	Delay due to subsequent delay in predecessor schedule activities.
119	P0WXXXXPSCM722	Main Transformers Fabricator Issue PO for Material - Unit 3	28-Feb-15	2-Feb-15			-	
120	2CMCT118RN195	Complete welding of Unit 2 Passive Residual Heat Removal System piping	5-Feb-15	19-Aug-16			+18	
121	P0WXXXXPSCM723	Steam Generator - Contractor Acceptance of Equipment at Port of Entry - Unit 3	30-Apr-15	30-Nov-15			+7	Delay due to subsequent delay in predecessor schedule activities.
122	P0WXXXXPSCM724	Refueling Machine - Shipment of Equipment to Site - Unit 3	28-Feb-15	6-Nov-15			+9	Delay due to schedule refinement and schedule re-sequencing.
123	2CMCT239MH130	Set Unit 2 Polar Crane	9-Jan-15	14-Sep-16			+20	

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**BLRA Milestone Tracking**  
**Accelerated Schedule - U2 COD: 05-Dec-18**

14

SCANA\_RP0641596

Tracking ID	Primavera Activity ID	Milestone Description	Reset Milestone Date	Month End Milestone Date	New Date	Actual Completion Date	Delta Months from Reset Milestone Date	Internal Notes
124	P0WXXXPSCM725	Reactor Coolant Pumps - Shipment of Equipment to Site - Unit 3	30-Jun-15	31-Oct-16			+16	Delay associated with supplier design changes and subsequent delay in predecessor schedule activities
125	P0WXXXPSCM726	Main Transformers Ready to Ship - Unit 3	31-Jul-15	31-May-15			-2	
126	P0WXXXPSCM727	Spent Fuel Storage Rack - Shipment of Last Rack Module - Unit 3	31-Jul-14	15-Sep-14			+2	
127	2CEAU066XX1145	Start electrical cable pulling in Unit 2 Auxiliary Building	14-Aug-13	16-Jun-16			+34	
128	2VSMILPM00052	Complete Unit 2 Reactor Coolant System cold hydro	22-Jan-16	30-Aug-17			+19	
129	2VSIDPT00458	Activate class 1E DC power in Unit 2 Auxiliary Building.	15-Mar-15	5-Dec-16			+21	
130	2VSMILPM00076	Complete Unit 2 hot functional test.	3-May-16	31-Dec-17			+19	
131	3CMCT205XX020	Install Unit 3 ring 3 for containment vessel	25-Aug-15	14-Jul-16			+11	
132	2VSCSFLT1235	Load Unit 2 nuclear fuel	15-Sep-16	4-Jun-18			+21	
133	C1009TN072	Unit 2 Substantial Completion	15-Mar-17	5-Dec-18			+21	
134	3CMCT100RX130	Set Unit 3 Reactor Vessel	22-Oct-15	20-Mar-17			+17	
135	3CMCT084SG127	Set Unit 3 Steam Generator #2	25-Feb-16	18-Jul-17			+17	
136	3CMCT118RC135	Set Unit 3 Pressurizer Vessel	16-Jul-15	3-Apr-17			+21	
137	3CMCT118RN195	Complete welding of Unit 3 Passive Residual Heat Removal System piping	16-Jun-16	14-Nov-17			+17	
138	3CMCT239MH130	Set Unit 3 polar crane	9-May-16	15-Sep-17			+16	
139	3CCT82548L970	Start Unit 3 Shield Building roof slab rebar placement	26-May-16	14-Feb-17			+9	
140	3CEAU066XX1145	Start Unit 3 Auxiliary Building electrical cable pulling	7-Nov-14	8-Sep-17			+34	
141	3VSIDPT00458	Activate Unit 3 Auxiliary Building class 1E DC power	15-May-16	22-Apr-18			+23	
142	3VSMILPM00052	Complete Unit 3 Reactor Coolant System cold hydro	22-Mar-17	30-Jan-19			+22	
143	3VSMILPM00076	Complete Unit 3 hot functional test	3-Jul-17	30-May-19			+22	
144	3VSCSFLT1235	Complete Unit 3 nuclear fuel load	15-Nov-17	22-Nov-19			+24	
145	3VSCS100PP340	Begin Unit 3 full power operation	8-Apr-18	7-May-20			+25	
146	3VSCSPTHHR110	Unit 3 Substantial Completion	15-May-18	7-Jun-20			+25	

UNIT 2

V.C. Summer Unit 2 Project Key Dates Overview

Impacted/Partially Accelerated Schedule - U2 COD: 13-Jun-19



Current Date is calculated using a schedule data date of: 7/21/2014

Target Dates Based on ECS Integration Baseline.

15  
SCANA\_RP0641597

Act Description	Act ID	Current Date	MS Type
1 COL Approval	2CCNINBMXX000	3/30/2012 A	F
2 Start Turbine Bldg Basemat - EL 82'-9"	2CCTB082BL1012	8/20/2012 A	S
3 [SPMS] Place Nuclear Island Basemat Concrete (FNC) - Unit 2	2CCNINBMXX120	3/9/2013 A	S
4 Lift & Set [CV] (CR10) - EL 66'6" (450 Tons)	2ECNINBMXX012	4/3/2013 A	S
5 [-BLRA-] Set Containment Vessel Bottom Head on 16 Supports - EL 66'6" (900 Tons)	2CMCT066XX200	5/22/2013 A	S
6 [-BLRA-] Set module CA04 for Unit 2	2CCCT071XX110	9/27/2013 A	S
7 [MM] Lift/ Set & Align CA20 Structural Module On Basemat - EL 66'6" (1200 Tons) (PRHA)	2CCAU066XX312	5/9/2014 A	S
8 [MM] Lift/ Set/ Align CA05 (CVS/Access Tunnel/PXS-B Walls Structural Module w/ Floor) - EL 80'6" (65 Ton)	2CCCT080XX110	11/26/14	S
9 [MM] All Condensers Set - Complete	2CMTBXXCD8724	12/12/2013 A	F
10 [-BLRA-] [SPMS] Set Containment Vessel (CV) Ring 1 - EL 104'-1 1/2"	2CMCT104XX020	6/3/2014 A	S
11 [SPMS] Place Concrete for Basemat - 1st Bay-EL100_subArea13 (Mix B2H)	2CCTB100BL866	3/4/15	S
12 [MM] Lift/ Set/ Align CA01 (Steam Generator & Refueling Canal Module) - EL 83'0" (610 Ton) - Cont Bldg (PRHA)	2CCCT080XX130	3/20/15	S
13 [MM] Start VCS Unit 2 Shield Building Construction at Horizontal Transition Pieces - EL 100'	2CCSB100XX180	1/12/15	S
14 [-BLRA-] Lift/ Set/ Align CA03 (IRWST/ Southwest Walls M Structural Module - EL 96'0"	2CCCT107XX017	10/27/15	S
15 [MM] Lift/ Set/ Align CA02 (Structural Module IRWST/ Pressurizer Wall M Module) - EL 94'	2CSCT107XX020	9/10/15	S
16 [MM] Set [CV] Ring 2 including Walkway - Horizontal Circular Tray & Piping - EL 155'-0 3/8"	2CPCT155XX020	11/2/15	S
17 [MM] Start U2 Shield Building Horizontal Transition Piece Installation - EL 146'10"	2CSSB147XX180	9/1/15	S
18 [MM] TG Pedestal: Concrete Cure Complete	2CCTBXXMTS98	1/13/15	F
19 [-BLRA-] Lift/ Set & Align Reactor Vessel - EL 100' (224 Tons) (From Horizontal to Vertical Setting)	2CMCT100RX130	5/13/16	S
20 [-BLRA-] Set Containment Vessel Ring 3 - EL 205'-11 7/8"	2CMCT205XX020	3/2/16	S
21 [SPMS] HP Turbine Lower Casings - Set and Contact Checks	2CMTB170MT180	12/3/15	S
22 [MM] Initial Energization Start (RAT A&B) (IE)	2VSMILPM00020	3/3/17	S
23 [MM] All Steel Complete for TB Bldg Unit 2	2CSTB254BL733	1/27/17	F
24 [MM] U2 - CBI Services Lift/Set/Align and Tack Weld Containment Vessel Top Head/ EL 244'-2 1/2" (CBIsvcs C028 C1773MV504-2		1/16/17	S
25 [MM] HP Turbine - 1st Set Rotor	2CMTB170MT1036	8/15/16	S
26 [MM] U2 Shield Building Vertical Int/Ext Shield Wall Panel Construction Complete - EL 248'-6 1/2"	2CSSB239XX180	7/13/17	F
27 [MM] Secondary Hydro Test Window - Start	2VSMILPM10700	5/12/17	S
28 [MM] Main Control Room Ready for Testing	2VSMILPT00364	6/26/17	S
29 [MM] Start Lube Oil Flush for Turbine & Generator	2CMTB170MT720	2/3/17	S
30 [MM] Start Lift/ Set U2 Shield Building Roof	2CSSB264SS180	2/5/18	S
31 [MM] Start Lift/ Set CB20 - PCS Tank Module (PCCWST) on SB Roof - EL 293'9"	2CSSB293CB180	3/8/18	S
32 [MM] Fill & Vent RCS (NSSS)	2VSRXPM125	11/13/17	S
33 [MM] BOP - Turbine on Turning Gear	2VSMILPM00098	10/17/17	S
34 [MM] BOP - Condenser Vacuum /Perform Helium Test / Repair Leaks	2VSMILPM10880	10/23/17	S
35 [MM] Cold Hydro Test Window - Start	2VSMILPM00050	1/12/18	S
36 [MM] Pre-Core HFT - Start	2VSMILPM00065	3/29/18	S
37 [MM] CPT / ILRT Test- Start	2VSMILPM00045	8/20/18	S
38 [MM] Receive 103g Finding from NRC	2VSMILPM00031a	12/4/18	F
39 [MM] Fuel Load - Start (Mode 6)	2VSMILPM10810	12/11/18	S
40 [MM] Declare U2 Substantial Completion	2VSCSPTHHR110	6/13/19	F

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UNIT 2

V.C. Summer Unit 2 Project Key Dates Overview

Accelerated Schedule - U2 COD: 5-Dec-18



Current Date is calculated using a schedule data date of: 7/14/2014

Target Dates Based on ECS Integration Baseline.

16

SCANA\_RP0641598

Act Description	Act ID	Current Date	MS Type
1 COL Approval	2CCNINBMXX000	3/30/2012 A	F
2 Start Turbine Bldg Basemat - EL 82'-9"	2CCTB082BL1012	8/20/2012 A	S
3 [SPMS] Place Nuclear Island Basemat Concrete (FNC) - Unit 2	2CCNINBMXX120	3/9/2013 A	S
4 Lift & Set [CV] (CR10) - EL 66'6" (450 Tons)	2ECNINBMXX012	4/3/2013 A	S
5 [-BLRA-] Set Containment Vessel Bottom Head on 16 Supports - EL 66'6" (900 Tons)	2CMCT066XX200	5/22/2013 A	S
6 [-BLRA-] Set module CA04 for Unit 2	2CCCT071XX110	9/27/2013 A	S
7 [MM] Lift/ Set & Align CA20 Structural Module On Basemat - EL 66'6" (1200 Tons) (PRHA)	2CCAU066XX312	5/9/2014 A	S
8 [MM] Lift/ Set/ Align CA05 (CVS/Access Tunnel/PXS-B Walls Structural Module w/ Floor) - EL 80'6" (65 Ton)	2CCCT080XX110	11/20/14	S
9 [MM] All Condensers Set - Complete	2CMTBXXCD8724	12/12/2013 A	F
10 [-BLRA-] [SPMS] Set Containment Vessel (CV) Ring 1 - EL 104'-1 1/2"	2CMCT104XX020	6/3/2014 A	S
11 [SPMS] Place Concrete for Basemat - 1st Bay-EL100_subArea13 (Mix 82H)	2CCTB100BL866	3/2/15	S
12 [MM] Lift/ Set/ Align CA01 (Steam Generator & Refueling Canal Module) - EL 83'0" (610 Ton) - Cont Bldg (PRHA)	2CCCT080XX130	3/17/15	S
13 [MM] Start VCS Unit 2 Shield Building Construction at Horizontal Transition Pieces - EL 100'	2CCSB100XX180	3/11/15	S
14 [-BLRA-] Lift/ Set/ Align CA03 (IRWST/ Southwest Walls M Structural Module - EL 96'0"	2CCCT107XX017	8/28/15	S
15 [MM] Lift/ Set/ Align CA02 (Structural Module IRWST/ Pressurizer Wall M Module) - EL 94'	2CSCT107XX020	7/21/15	S
16 [MM] Set [CV] Ring 2 including Walkway - Horizontal Circular Tray & Piping - EL 155'-0 3/8"	2CPCT155XX020	9/3/15	S
17 [MM] Start U2 Shield Building Horizontal Transition Piece Installation - EL 146'10"	2CSSB147XX180	9/18/15	S
18 [MM] TG Pedestal: Concrete Cure Complete	2CCTBXXMTS98	1/6/15	F
19 [-BLRA-] Lift/ Set & Align Reactor Vessel - EL 100' (224 Tons) (From Horizontal to Vertical Setting)	2CMCT100RX130	3/16/16	S
20 [-BLRA-] Set Containment Vessel Ring 3 - EL 205'-11 7/8"	2CMCT205XX020	1/6/16	S
21 [SPMS] HP Turbine Lower Casings - Set and Contact Checks	2CMTB170MT180	11/24/15	S
22 [MM] Initial Energization Start (RAT A&B) (IE)	2VSMILPM00020	10/14/16	S
23 [MM] All Steel Complete for TB Bldg Unit 2	2CSTB254BL733	11/7/16	F
24 [MM] U2 - CBI Services Lift/Set/Align and Tack Weld Containment Vessel Top Head/ EL 244'-2 1/2" (CBIsvcs C028 C1773MV504-2		11/10/16	S
25 [MM] HP Turbine - 1st Set Rotor	2CMTB170MT1036	5/27/16	S
26 [MM] U2 Shield Building Vertical Int/Ext Shield Wall Panel Construction Complete - EL 248'-6 1/2"	2CSSB239XX180	12/29/16	F
27 [MM] Secondary Hydro Test Window - Start	2VSMILPM10700	12/26/16	S
28 [MM] Main Control Room Ready for Testing	2VSMILPT00364	2/9/17	S
29 [MM] Start Lube Oil Flush for Turbine & Generator	2CMTB170MT720	11/15/16	S
30 [MM] Start Lift/ Set U2 Shield Building Roof	2CSSB264SS180	7/21/17	S
31 [MM] Start Lift/ Set CB20 - PCS Tank Module (PCCWST) on SB Roof - EL 293'9"	2CSSB293CB180	8/23/17	S
32 [MM] Fill & Vent RCS (NSSS)	2VSRXPM125	6/15/17	S
33 [MM] BOP - Turbine on Turning Gear	2VSMILPM00098	8/1/17	S
34 [MM] BOP - Condenser Vacuum /Perform Helium Test / Repair Leaks	2VSMILPM10880	8/7/17	S
35 [MM] Cold Hydro Test Window - Start	2VSMILPM00050	8/14/17	S
36 [MM] Pre-Core HFT - Start	2VSMILPM00065	10/29/17	S
37 [MM] CPT / ILRT Test- Start	2VSMILPM00045	2/8/18	S
38 [MM] Receive 103g Finding from NRC	2VSMILPM00031a	5/28/18	F
39 [MM] Fuel Load - Start (Mode 6)	2VSMILPM10810	6/4/18	S
40 [MM] Declare U2 Substantial Completion	2VSCSPTHHR110	12/5/18	F

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UNIT 3

V.C. Summer Unit 3 Project Key Dates Overview

Unit 3 COD 13-Jun-20



Current Date is calculated using a schedule data date of: 7/21/2014

Target Dates Based on ECS Integration Baseline.

17

SCANA\_RP0641599

Act Description	Act ID	Current Date	MS Type
1 COL Approval	3CCNIN8MXX000	3/30/2012 A	F
2 [MM] Start Turbine Bldg Basemat - EL 82'-9"	3CCTB082BL1012	9/22/14	S
3 [SPMS] Place Nuclear Island Basemat Concrete (FNC) - Unit 2	3CCNIN8MXX120	3/9/2013 A	S
4 [MM] CR10 Final Torque of Bolts	3CSS8066XX050	3/28/2014 A	S
5 [MM] Set Containment Vessel Bottom Head (CVBH) on 16 Supports- EL 66'6" (900 Tons)	3CMCT071XX200	5/21/14 A	S
6 [MM] Lift/ Set & Align CA04 (Reactor Vessel Cavity Module)- EL 71'6"	3CCCT071XX110	11/25/14	S
7 [MM] Lift/ Set & Align CA20 Structural Module On Basemat - EL 66'6" (1200 Tons)	3CCAU066XX312	9/22/15	S
8 [MM] Lift/ Set/ Align CA05 (CVS/Access Tunnel/PXS-B Walls Structural Module w/ Floor)-EL 80'6" (65 Ton)	3CCCT080XX110	4/21/15	S
9 [MM] All Condensers Set - Complete	3CMTBXXCD8724	6/5/15	F
10 [MM] Set Containment Vessel (CV) Ring 1- El 104'-1 1/2"	3CMCT104XX020	4/14/15	S
11 [MM] Place / Cure & Remove Forms for Basemat Concrete - EL 100 Area 13 (1st Bay)	3CCTB100BL866	7/10/15	S
12 [MM] Lift/ Set/ Align CA01 (Steam Generator & Refueling Canal Module)- El 80'6" (610 Ton)	3CCCT080XX130	2/2/16	S
13 [MM] Start VCS Unit 3 Shield Building Construction at Horizontal Transition Pieces EL 100'	3CCS8100XX180	1/3/16	S
14 [MM] Lift/ Set & Align CA03 (RWST/ Southwest Walls M Structural Module)- El 96'-0"	3CCCT107XX017	5/5/16	S
15 [SPMS] Lift/ Set & Align CA02 (Structural Module RWST/ Pressurizer Wall M Module)- El 94'-0"	3CCCT107XX020	4/19/16	S
16 [MM] Set [CV] Ring 2 including Walkway- Horizontal Circular Tray and Piping- El 155'-0 3/8"	3CPCT155XX020	5/10/16	S
17 [MM] Start U3 Shield Building Horizontal Transition Piece Installation at El 146'10"	3CSS8147XX180	6/29/16	S
18 [MM] TG Pedestal- Concrete Cure Complete	3CCTBXXMTS98	3/2/16	F
19 [-BLRA-] Lift/ Set & Align Reactor Vessel- El 100' (224 Tons) (From Horizontal to Vertical Setting)	3CMCT100RX130	1/3/17	S
20 [-BLRA-] Set Containment Vessel Ring 3- El 205'-11 7/8"	3CMCT205XX020	7/14/16	S
21 [MM] HP Turbine Lower Casings - Set and Contact Checks	3CMTB170MT180	12/19/16	S
22 [MM] Initial Energization Start (RAT A&B) (IE)	3VSMILPM00020	12/7/17	S
23 [MM] All Steel Complete for TB Bldg Unit 3	3CSTB254BL733	4/20/17	F
24 [MM] U3 - Lift/Set/Align and Tack Weld Containment Vessel Top Head/ El 244'-2 1/2" (CBIs vcs C05720)	C1773MV504-3	6/28/17	S
25 [SPMS] HP Turbine - 1st Set Rotor	3CMTB170MT1031	4/17/17	S
26 [MM] U3 Shield Building Vertical Int/Ext Shield Wall Panel Construction Complete - EL 248'-6 1/2"	3CSSB239XX180	6/23/18	F
27 [MM] Secondary Hydro Test Window - Start	3VSMILPM10700	5/12/18	S
28 [MM] Main Control Room Ready for Testing	3VSMILPT00364	7/7/18	S
29 [MM] Start Lube Oil Flush for Turbine & Generator	3CMTB170MT720	10/6/17	S
30 [MM] Start Lift/ Set U3 Shield Building Roof	3CSSB264SS180	1/16/19	S
31 [MM] Start Lift/ Set CB20 - PCS Tank Module (PCCWST) on SB Roof at EL 293'9"	3CSSB289CB180	2/18/19	S
32 [MM] Fill & Vent RCS	3VSRXPM125	11/17/18	S
33 [MM] BOP - Turbine on Turning Gear	3VSMILPM00098	10/24/18	S
34 [MM] BOP - Condenser Vacuum /Perform Helium Test / Repair Leaks	3VSMILPM10880	10/24/18	S
35 [MM] Cold Hydro Test Window - Start	3VSMILPM00050	1/21/19	S
36 [MM] Pre-Core HFT - Start	3VSMILPM00065	4/7/19	S
37 [MM] CPT / ILRT Test- Start	3VSMILPM00045	8/1/19	S
38 [MM] Receive 103g Finding from NRC	3VSMILPM00031a	12/3/19	F
39 [MM] Fuel Load - Start (Mode 6)	3VSMILPM10810	12/11/19	S
40 [-BLRA-] [MM] Declare U3 Substantial Completion	3VSCSPTHHR110	6/14/20	F

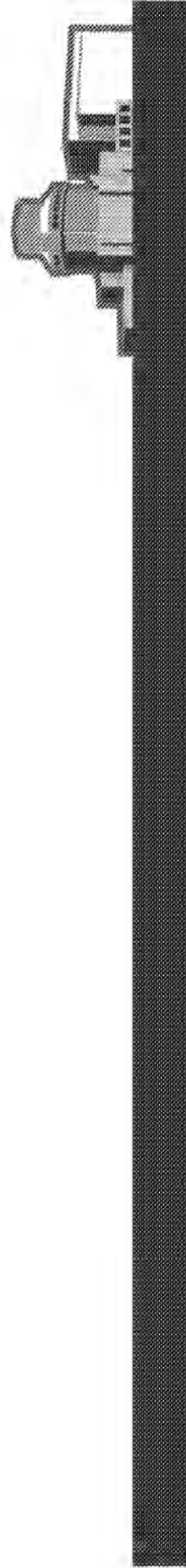
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## Wrap-up

- The Consortium looks forward to further review of the IPS and dialogue with the Owner in the coming weeks.



**From:** JOHNSON, SHIRLEY S  
**Sent:** Friday, August 29, 2014 3:00 PM  
**To:** WALKER, CARLETTE L  
**Subject:** Re: EAC Handout Material for 8-29-2014

Wow!!

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

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**From:** WALKER, CARLETTE L  
**Sent:** Friday, August 29, 2014 11:12 AM  
**To:** JOHNSON, SHIRLEY S; WICKER, SHERI L; SMITH, ABNEY A JR; BROWNE, KENNETH JEROME; CHERRY, WILLIAM; KOCHMS, KEVIN R; JONES, RONALD A; TORRES, ALAN D; BYRNE, STEPHEN A; ARCHIE, JEFFREY B; YOUNG, KYLE MATTHEW; FELKEL, MARGARET SHIRK; 'Crosby, Michael'; WICKER, SHERI L  
**Subject:** EAC Handout Material for 8-29-2014

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**From:** Hyde, JoAnne <hydej@westinghouse.com>  
**Sent:** Thursday, August 28, 2014 6:55 PM  
**To:** WALKER, CARLETTE L  
**Cc:** Christopher R. Levesque; Donald DePierro (don.depierro@cbi.com); Kenneth W. Hollenbach; Joseph Arostegui; Olcsvary, Duane C; Hyde, JoAnne  
**Subject:** Estimate Material for 8-29-2014

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\*\*\*This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from a trusted source.

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Hello Carlette,

Attached are the meeting materials for tomorrow's meeting. We look forward to reviewing this information with you in detail.

**JoAnne W. Hyde**  
*Consortium Commercial Director*  
*V.C. Summer 2&3 Project*  
Westinghouse Electric Company  
Nuclear Power Plants  
1000 Westinghouse Drive Suite 112  
Cranberry Township, PA 16066

hydej@westinghouse.com  
Phone (412) 374-5650  
Cell (412)951-4110

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# VC Summer Target and T&M Estimate Update

August 29, 2014

Jenkinsville, SC

The information contained herein is an estimate based on assumptions and facts known to the Contractor at this point in time. Contractor expressly reserves the right modify any information or estimate as may be necessary from time to time.

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## Key Assumptions for Revised Estimate

1. Estimate developed beginning with CO-16 and adding projected forecast for the remainder of the project
2. Where appropriate, estimate is based on the same assumptions as used in development of the IPS
3. Estimate is based on the dates identified in the IPS
4. Where uncertainty remains, the best available information was utilized for estimating cost
5. Unit rates were unchanged. Productivity Factors and quantity adjustments are the basis for adjustment/change of labor hours.
6. Quantities were updated using design information and evaluated against other nuclear projects
7. Productivity factors were evaluated utilizing project experience to date and assumed improvements going forward
8. Estimate includes known and reasonably quantifiable impacts only
9. No cost is included for schedule acceleration other than limited 2<sup>nd</sup> shift work.
10. Estimate does not consider NNI expediting impact
11. Site Layout and Cyber Security reflect current outstanding proposal amounts
12. Contingency was estimated based on the ETC forecast. The risk profile will be updated upon completion of the time phasing.



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## Key Mitigations Strategies in Revised Estimate

1. E&DCRs will be incorporated in parent drawings.
2. The concrete plan improvements will continue to be implemented. These improvements include Tekla <sup>SOFTWARE</sup> modeling and interference checking of the reinforcing with embedded commodities and reconciliation of known <sup>INTERFERENCES</sup> prior to installation.
3. The suspended system designs will be modeled and clash detected to minimize physical interferences at the point of installation.
4. Generic tolerance requirements will be established in most cases reducing the need for individual specific NND's and EDCR's.
5. Constructability review of critical and complex installations will be performed in support of IPS requirements.
6. CBI will implement various Work Package improvements.
7. Critical deliverables for construction will be referenced and support the IPS requirements.

Implementation of the foregoing strategies is subject to regulatory changes and/or differing interpretations of existing regulations



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## Improvement Activities

- Project Management Improvements:
  - Improved Schedule quality and control (ECS/IPS)
  - Aggressive use of milestone and issue management
  - Continued development of the OCC
  - Area Management Focus
  - Weekly Area Managers Meeting
    - 3 week look ahead rigorously addressed
  - POD led by Construction Manager with strong focus on daily expectations
- EPC Process Improvements:
  - Focus on key work streams:
    - Shield Building
    - Mechanical and Structural Modules
    - Concrete
    - Steel
    - Piping
    - Electrical *REC*
    - HVAC *ADD*

*KLASHAN TEAM*



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## Improvement Activities cont'd

- Individual work stream optimization projects will identify and implement changes to improve erection rates and commodity installation rates, for example by improved tolerance management, improved clash detection methods, work package improvements through early E&DCR incorporation, etc.
- These work stream improvement projects will benefit from the use of multi-disciplinary teams (design, construction, quality, etc.)



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## Estimate Approach

- Estimates were compiled through an aggregation of data from multiple project team members and subcontractors for remaining work
- Estimates for June 2019(U2) and 2020(U3) Substantial Completion dates (SCD) were developed as the base case
- Accelerating actions were included to determine the December 2018 (U2) and December 2019 (U3) Substantial Completion estimates
- Productivity factors are assumed to improve over the remaining life of the project *PP TO 1.15 OVER NEXT 6 MO.* *1.3* *1.15* *ASSUME START 1.3 BUT ONLY ACHIEVING 1.4 NOW*
- Respective estimates were reviewed between Consortium Members
- Target Price adjusted to reflect lower profit associated with exceeding Established Target Price *30% OF 45690*

*14,500 MANTHANS IN PPS @ 2016*



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## Schedule Overview

- VC Summer Unit 2 – Substantial Completion June 2019  
(Impacted/Partially Accelerated)
  - 5X10 construction work schedule with selective extended work schedules (near-term & MAB excluded) <sup>2<sup>ND</sup> SHIFT (COST IN DEC ESTIMATE NOT DONE)</sup>
  - Fabrication and delivery of Main Steam/Feed Water penetration module will support construction needs
  - Fabrication and delivery of the Shield Building panels are based on the delivery dates provided by the vendor
- The critical path proceeds through shield building wall panel deliveries from NNI into erection of the shield building walls and installation of the air intake structure, shield wall tension ring, top hat, shield building roof and setting of the PCS tank module on the roof. The path continues to operational testing through Fuel Load, continuing through Power Ascension, 100 percent power, then Substantial Completion.
- Liquidated damages are assumed in the estimate based on the IPS.



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# Summary of Cost Impacts – Target

June 2019 SCD Impacted / Partially Accelerated Case<sup>1</sup>  
\$2007 \$M

Cost Area	CO-16 Target	Proposed Estimate Target	Variance Target
Direct Labor – Site Specific	\$94.3	\$92.3	(\$2.0)
Direct Labor – Unit 2	\$160.3	\$274.3	\$114.0
Direct Labor – Unit 3	\$166.3	\$272.9	\$106.6
Indirect Construction Labor	\$190.3	\$244.7	\$54.5
FNM	\$400.3	\$632.5	\$232.2
Subcontracts <sup>MANUAL</sup>	\$272.4	\$416.5	\$144.1
Distributables	\$261.9	\$336.9	\$75.0
FNM Expenses	\$16.8	\$17.0	\$0.3
Construction Equipment Fuel	\$12.8	\$25.4	\$12.7
Other Costs	\$127.0	\$193.0	\$66.0
<b>CBI SubTotal</b>	<b>\$1,702.3</b>	<b>\$2,505.6</b>	<b>\$803.2</b>
EPC Mgmt <sup>RESTATE PRECIFICATION</sup>	-	\$31.5	\$31.5
Containment Vessel <sup>RESTATE PRECIFICATION</sup>	\$68.7	\$155.0	\$86.3
Plant Startup & Testing	-	-	-
Other	\$21.0	\$21.0	-
<b>Westinghouse SubTotal</b>	<b>\$89.7</b>	<b>\$207.5</b>	<b>\$117.8</b>
<b>Total</b>	<b>\$1,792.0</b>	<b>\$2,713.1</b>	<b>\$921.0</b>

<sup>1</sup>Cost only—Does not include G&A, Profit, etc.



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# Summary of Cost Impacts – T&M

June 2019 SCD Impacted / Partially Accelerated Case<sup>1</sup>  
\$2007 \$M

Cost Area	CO-16 T&M	Proposed Estimate T&M	Variance T&M
Direct Labor – Site Specific	-	-	-
Direct Labor – Unit 2	-	-	-
Direct Labor – Unit 3	-	-	-
Indirect Construction Labor <i>Subcontractor C-1800, 1000, 1000, 1000</i>	-	\$26.5	\$26.5
FNM	\$0.1	\$6.6	\$6.5
Subcontracts	\$0.7	\$0.7	-
Distributables	\$36.5	\$18.0	(\$18.5)
FNM Expenses	-	\$1.0	\$1.0
Start-up	\$96.2	\$97.0	\$0.8
Other Costs	\$47.2	\$56.6	\$9.4
<b>CBI SubTotal</b>	<b>\$180.7</b>	<b>\$206.5</b>	<b>\$25.8</b>
EPC Mgmt	-	-	-
Containment Vessel	-	-	-
Plant Startup & Testing	\$61.0	\$102.1	\$41.1
Other <i>same amount / 1000 / 1000 / 1000 / 1000</i>	\$50.4	\$104.6	\$54.2
<b>Westinghouse SubTotal</b>	<b>\$111.5</b>	<b>\$206.7</b>	<b>\$95.3</b>
<b>Total</b>	<b>\$292.2</b>	<b>\$413.2</b>	<b>\$121.1</b>

<sup>1</sup>Cost only—Does not include G&A, Profit, etc.



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# Summary of Cost Impacts – Target

Dec 2018 SCD Accelerated Case<sup>1</sup>  
\$2007 \$M

Cost Area	GO-16 Target	Impacted/Partially Accelerated Target (Est. June SC)	Proposed Acceleration	Variance to GO-16 Target
Direct Labor – Site Specific	\$94.3	\$92.3	-	(\$2.0)
Direct Labor – Unit 2	\$160.3	\$274.3	\$12.4	\$126.4
Direct Labor – Unit 3	\$166.3	\$272.9	\$12.4	\$119.0
Indirect Construction Labor	\$190.3	\$244.7	\$25.3	\$79.8
FNM	\$400.3	\$632.5	\$75.0	\$307.2
Subcontracts	\$272.4	\$416.5	\$1.6	\$145.7
Distributables	\$261.9	\$336.9	\$32.2	\$107.3
FNM Expenses	\$16.8	\$17.0	\$7.5	\$7.8
Construction Equipment Fuel	\$12.8	\$25.4	-	\$12.7
Other Costs	\$127.0	\$193.0	-	\$66.0
<b>CBI SubTotal</b>	<b>\$1,702.3</b>	<b>\$2,505.6</b>	<b>\$166.5</b>	<b>\$969.7</b>
EPC Mgmt	-	\$31.5	(\$10.5)	\$21.0
Containment Vessel	\$68.7	\$155.0	-	\$86.3
Plant Startup & Testing	-	-	-	-
Vendor Installation Support	\$21.0	\$21.0	-	-
<b>Westinghouse SubTotal</b>	<b>\$89.7</b>	<b>\$207.5</b>	<b>(\$10.5)</b>	<b>\$107.3</b>
<b>Total</b>	<b>\$1,792.0</b>	<b>\$2,713.1</b>	<b>\$156.0</b>	<b>\$1,077.0</b>



<sup>1</sup>Cost only—Does not include G&A, Profit, etc

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# Summary of Cost Impacts – T&M

Dec 2018 SCD Accelerated Case<sup>1</sup>  
\$2007 \$M

Cost Area	CO-16 T&M	Impacted Partially Accelerated Target Est. June 06	Proposed Acceleration	Variance to CO-16 T&M
Direct Labor – Site Specific	-	-	-	-
Direct Labor – Unit 2	-	-	-	-
Direct Labor – Unit 3	-	-	-	-
Indirect Construction Labor	-	\$26.5	\$2.5	\$29.0
FNM	\$0.1	\$6.6	-	\$6.6
Subcontracts	\$0.7	\$0.7	-	-
Distributables	\$36.5	\$18.0	\$1.8	(\$16.7)
FNM Expenses	-	\$1.0	-	\$1.0
Start-up	\$96.2	\$97.0	-	\$0.9
Other Costs	\$47.2	\$56.6	-	\$9.3
<b>CBI SubTotal</b>	<b>\$180.7</b>	<b>\$206.5</b>	<b>\$4.3</b>	<b>\$30.1</b>
EPC Mgmt	-	-	-	-
Containment Vessel	-	-	-	-
Plant Startup & Testing	\$61.0	\$102.1	(\$1.4)	\$39.7
Other	\$50.4	\$104.6	(\$3.2)	\$51.0
<b>Westinghouse SubTotal</b>	<b>\$111.5</b>	<b>\$206.7</b>	<b>(\$4.6)</b>	<b>\$90.7</b>
<b>Total</b>	<b>\$292.2</b>	<b>\$413.0</b>	<b>(\$0.3)</b>	<b>\$120.8</b>



<sup>1</sup>Cost only—Does not include G&A, Profit, etc

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## CB&I Direct Construction Approach

- **Impacted (partially accelerated)**
  - Unit 2 Substantial Completion June 2019 (Unit 3 June 2020)
  - Productivity analysis performed (see *productivity section*) by evaluating cost per unit/building/discipline
  - Design quantities validated (see *quantities section*) and labor forecasted
  - Consolidated deviations since CO16 into estimate template
- **Accelerated schedule**
  - Assumes all improvements identified to support Impacted (partially accelerated) schedule.
  - Unit 2 Substantial Completion Dec 2018 (Unit 3 Dec 2019)
    - *NNI Acceleration – cost under evaluation*
    - *SB Erection Acceleration – cost under evaluation*
    - *Inclusion of Schedule Contingency – \$165M*
    - *Reduction of hotel loads – (\$13M)*



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# CB&I Direct Construction Labor - Estimate - \$2007 \$M

June 2019 SCD Impacted/Partially Accelerated Case

Cost Area	Site Specific	Unit 2	Unit 3	Total
Above Ground Electrical	\$10.7	\$74.4	\$74.4	\$159.5
Above Ground Pipe	\$8.1	\$71.2	\$71.6	\$150.9
Building Construction	\$0.1	\$2.2	\$2.2	\$4.5
Civil Site Work	\$35.3	\$0.4	\$0.7	\$36.4
Concrete	\$25.1	\$65.7	\$64.5	\$155.3
Instrumentation & Control	\$0.6	\$8.8	\$8.8	\$18.2
Major Equipment	\$2.0	\$23.7	\$22.4	\$48.1
Modules	\$0	\$7.6	\$7.8	\$15.4
Structural Steel	\$0.6	\$19.8	\$19.8	\$40.2
Under Ground Electrical	\$4.8	\$0.2	\$0.4	\$5.4
Under Ground Pipe	\$5.1	\$0.3	\$0.2	\$5.6
<b>Total</b>	<b>\$92.3</b>	<b>\$274.3</b>	<b>\$272.9</b>	<b>\$639.5</b>



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# CB&I Direct Construction Labor - Site Specific Variances \$2007 \$M

June 2019 SCD Impacted / Partially Accelerated Case

Cost Area	CO-16	Current Estimate	Variance
Above Ground Electrical	\$7.5	\$10.7	\$3.1
Above Ground Pipe	\$7.0	\$8.1	\$1.1
Building Construction	\$0.1	\$0.1	-
Civil Site Work	\$16.4	\$35.3	\$18.9
Concrete	\$27.8	\$25.1	(\$2.6)
Instrumentation & Control	\$0.2	\$0.6	\$0.4
Major Equipment	\$29.8	\$2.0	(\$27.8)
Modules	-	-	-
Structural Steel	\$0.5	\$0.6	\$0.1
Under Ground Electrical	\$3.3	\$4.8	\$1.5
Under Ground Pipe	\$1.8	\$5.1	\$3.3
<b>Total</b>	<b>\$94.3</b>	<b>\$92.3</b>	<b>(\$2.0)</b>



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# CB&I Direct Construction Labor - Unit 2 Variances \$2007 \$M

June 2019 SCD Impacted /Partially Accelerated Case

Cost Area	CO-16	Current Estimate	Variance
Above Ground Electrical	\$46.6	\$74.4	\$27.8
Above Ground Pipe	\$47.6	\$71.2	\$23.5
Building Construction	\$0.9	\$2.2	\$1.4
Civil Site Work	-	\$0.4	\$0.4
Concrete	\$29.8	\$65.7	\$36.0
Instrumentation & Control	\$6.4	\$8.8	\$2.4
Major Equipment	\$17.1	\$23.7	\$6.5
Modules	\$1.0	\$7.6	\$6.7
Structural Steel	\$10.7	\$19.8	\$9.1
Under Ground Electrical	-	\$0.2	\$0.1
Under Ground Pipe	\$0.2	\$0.3	\$0.1
<b>Total</b>	<b>\$160.3</b>	<b>\$274.3</b>	<b>\$114.0</b>



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# CB&I Direct Construction Labor- Unit 3 Variances \$2007 \$M

June 2019 SCD Impacted /Partially Accelerated Case

Cost Area	CO-16	Current Estimate	Variance
Above Ground Electrical	\$46.6	\$74.4	\$27.8
Above Ground Pipe	\$47.6	\$71.6	\$24.0
Building Construction	\$0.9	\$2.2	\$1.4
Civil Site Work	\$0.2	\$0.7	\$0.5
Concrete	\$29.6	\$64.5	\$34.8
Instrumentation & Control	\$6.4	\$8.8	\$2.4
Major Equipment	\$20.4	\$22.4	\$2.0
Modules	\$3.4	\$7.8	\$4.3
Structural Steel	\$10.7	\$19.8	\$9.1
Under Ground Electrical	\$0.3	\$0.4	\$0.2
Under Ground Pipe	\$0.2	\$0.2	\$0.1
<b>Total</b>	<b>\$166.3</b>	<b>\$272.9</b>	<b>\$106.6</b>



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# CB&I Direct Construction Labor Variance Explanations

Direct Construction Discipline	Variance Explanations in Addition to PF
Electrical	<ul style="list-style-type: none"> <li>• Communications System Redesign</li> <li>• Raceway Design Change</li> <li>• Normal Shutdown After Fire</li> </ul>
Pipe	<ul style="list-style-type: none"> <li>• Design Development</li> </ul>
Concrete	<ul style="list-style-type: none"> <li>• NI Basemat</li> <li>• Tolerance issues</li> <li>• Density of rebar</li> <li>• Formwork updated takeoffs</li> <li>• Increases in Anchor Bolt &amp; Embed Quantities</li> <li>• Increase of ~ 25,000 cy — 2</li> </ul>
Major Equipment	<ul style="list-style-type: none"> <li>• Turbine Installation Work Hour estimate was low based on comparable projects</li> </ul>
Modules	<ul style="list-style-type: none"> <li>• Third Party takeoff of mechanical modules quantities <i>Michigan</i></li> </ul>
Structural Steel	<ul style="list-style-type: none"> <li>• Turbine Building Steel design development / Decking / Grating</li> </ul>



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# CB&I Indirect Construction - \$2007 \$M

June 2019 SCD Impacted / Partially Accelerated Case

Cost/Area	GO-16 Target	GO-16 T&M	Estimate Target	Estimate T&M	Variance Target	Variance T&M
Indirect Construction	\$190.3	-	\$244.7	\$26.5	\$54.5	\$26.5
Labor						
FNM	\$400.3	\$0.1	\$632.5	\$6.5	\$232.2	\$6.6
Direct Subcontracts	\$220.0	\$0.7	\$357.7	\$0.7	\$137.6	-
Indirect Subcontracts	\$52.4	-	\$58.8	\$0.1	\$6.5	\$0.1
Distributables	\$261.9	\$36.5	\$336.9	\$18.0	\$75.0	(\$18.5)
FNM Expenses	\$16.8	-	\$17.0	\$1.0	\$0.3	\$1.0
Construction Equipment (Fuel)	\$12.8	-	\$25.4	-	\$12.7	-
Start-up	-	\$96.2	-	\$97.0		\$0.9
Other Costs	\$127.0	\$47.2	\$193.0	\$56.6	\$66.0	\$9.3
<b>Total</b>	<b>\$1,281.4</b>	<b>\$180.7</b>	<b>\$1,866.1</b>	<b>\$206.5</b>	<b>\$584.7</b>	<b>\$25.8</b>



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## CB&I Indirect Construction Assumptions

- Forward looking craft ratios (Direct to Indirect) are forecasted to be more in line with original estimate
- Cost for Facility/Infrastructure changes are incorporated.
- The estimate incorporates schedule extension since CO-16
- Indirect cost differential between Unit 2 Accelerated Schedule and Unit 2 Impacted/Partially Mitigated schedule are identified as those required for supporting the Shield Building



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# CB&I Indirect Construction Variance Explanations

Indirect Cost Area	Variance Explanations
Indirect Construction Labor	<ul style="list-style-type: none"> <li>Impacts related to project evolution have caused increases in the temporary infrastructure                             <ul style="list-style-type: none"> <li>This includes additional facilities for a projected increase in the number of FNMs, increased laydown / storage space, extended durations of preventative maintenance, warehousing / material support personnel, etc.</li> </ul> </li> </ul>
FNM	<ul style="list-style-type: none"> <li>Field Engineering has been impacted by design tolerances, volume of E&amp;DCRs, work package process, etc.</li> <li>Increases in QA/QC resources is attributed to the increase in regulatory oversight, enhanced supplier inspections, and first article surveys</li> <li>A Corrective Action Program (CAP) team has been assembled to maintain corrective actions</li> <li>Additional resources have been required to support the design evolution</li> </ul>
Subcontracts	<ul style="list-style-type: none"> <li>The majority of Direct Subcontract impacts can be grouped into three buckets: design change impacts, scope shift from direct construction (shield building), and increased estimates</li> </ul>
Distributables	<ul style="list-style-type: none"> <li>Impacts related to project evolution have caused increases in the temporary infrastructure                             <ul style="list-style-type: none"> <li>This includes additional facilities for an increased number of FNMs, increased laydown / storage space, etc.</li> </ul> </li> <li>Per Diem cost impacts are attributed to increases in quantities and productivity</li> </ul>
FNM Expenses	<ul style="list-style-type: none"> <li>There were no significant impacts to the FNM expenses since CO-16</li> </ul>
Construction Equipment Fuel	<ul style="list-style-type: none"> <li>Costs associated with the projected schedule duration modification and the cost of fuel</li> </ul>
Start-Up Costs	<ul style="list-style-type: none"> <li>No significant impacts identified at this time</li> </ul>
Other Costs	<ul style="list-style-type: none"> <li>Cost increases resulting from estimate changes</li> <li>Use of mock-ups to prove design prior to field work</li> </ul>



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## CB&I Indirect Cost Mitigations

Indirect Cost Area	Mitigation Explanations
Indirect Construction Labor	<ul style="list-style-type: none"> <li>• Reduction in the temporary infrastructure</li> <li>• Decrease in the ratio of Indirect to Direct craft</li> </ul>
FNM	<ul style="list-style-type: none"> <li>• Completion of Engineering with certainty of finalization and predictability of schedule</li> <li>• A decrease in the volume of E&amp;DCRs</li> <li>• Reduction in the size, number and complexity of the Construction work packages</li> </ul>
Subcontracts	<ul style="list-style-type: none"> <li>• Completion of the Design and increased "White Space" will allow subcontractors to:                             <ul style="list-style-type: none"> <li>• Improve the pre-construction planning</li> <li>• Ensure the resources are onsite and in place to execute work scopes</li> </ul> </li> </ul>
Distributables	<ul style="list-style-type: none"> <li>• Improve the Craft Productivity thus decreasing Craft Per Diem</li> <li>• Improved planning will result in a reduction of other distributable costs</li> </ul>
FNM Expenses	<ul style="list-style-type: none"> <li>• Continuous monitoring of the FNM Expense accounts</li> </ul>
Construction Equipment Fuel	<ul style="list-style-type: none"> <li>• Improved planning associated with the construction equipment execution</li> <li>• Reduction in the overall amount of required equipment</li> </ul>
Start-Up Costs	<ul style="list-style-type: none"> <li>• Alignment of the Start-up with the updated IPS and continuous monitoring of progress</li> </ul>
Other Costs	<ul style="list-style-type: none"> <li>• Continuous monitoring of the Other Cost accounts in conjunction with mitigations above could reduce the risk of the project thus reducing the Other Costs impact</li> </ul>



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## Westinghouse Summary

- **Containment Vessel (Target)** -
  - Includes schedule delay estimate and change orders
- **Vendor Support (Target)** – No change in estimate *was \$21M originally*
- **Engineering (T&M)**
  - Start Up & Testing
    - Includes scope changes, first of a kind testing per license (CVAP and FPOT), and hotel load costs
  - Licensing
    - Includes hotel load and projected overall licensing effort
  - Simulator Instructor Training – No change in estimate
  - Delayed COL Study – No change in estimate
  - ITAAC Maintenance - Includes estimate for regulatory change
  - Affordable Care Act - Estimate for regulatory change
- **Import Duties (T&M)**
  - Reduction based on actuals



# WEC Summary of Cost Impacts - Target

## \$2007 \$M

June 2019 SCD Impacted/Partially Accelerated Case

Cost Area	CO-16 Target	Proposed Estimate Target	Variance Target
EPC Management	-	\$31.5	\$31.5
WEC Subcontracts	-	-	-
Containment Vessel (CBI Services)	\$68.7	\$155.0	\$86.3
Vendor Installation Support	\$21.0	\$21.0	
Import Duties	-	-	-
Total WEC Costs	\$89.7	\$207.5	\$117.8



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# WEC Summary of Cost Impacts – T&M

## \$2007 \$M

June 2019 SCD Impacted / Partially Accelerated Case

Cost Area	CO-16 T&M	Proposed Estimate T&M	Variance T&M
<b>WEC Engineering</b>			
Plant Startup & Testing	\$61.0	\$102.1	\$41.1
Licensing	\$2.2	\$39.3	\$37.1
Simulator Instructor Training	\$3.1	\$3.1	\$0.0
Delayed COL Study	\$0.1	\$0.1	\$0.0
ITAAC Maintenance	-	\$3.0	\$3.0
Affordable Care Act	-	\$5.0	\$5.0
Other T&M	-	\$24.2	\$24.2
<b>Import Duties</b>	\$45.0	\$30.0	(\$15.0)
<b>Total WEC Costs</b>	<b>\$111.5</b>	<b>\$206.7</b>	<b>\$95.2</b>

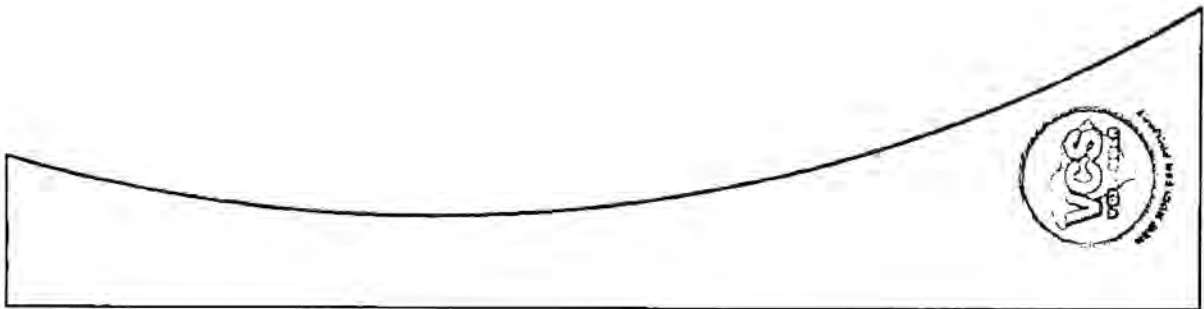


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## Individual Estimates

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## Quantity Changes

- The Quantity Estimate was broken into three (3) "Phases"
  - Phase I – Represented the change in quantities in Progress Tracker from CO-16 to June 2014
  - Phase II – Engineering estimated quantities for which the specific detailed quantities have not been identified (*i.e. cable feet but not specific gauge*)
  - Phase III – Engineering estimate of quantity risk associated with impacts that are known but have yet to be quantified are captured in contingency (*i.e. normal shut down after fire*)
- Non-key quantities associated with the key quantities were estimated to increase by the same percentage as the key quantities (*i.e. Rebar to Concrete*).



## Craft Productivity

- Analysis and reviews performed and consideration given to:
  - Unit – ability to recognize efficiencies of 2<sup>nd</sup> unit
  - Building – congestion, regulatory oversight, engineering completeness
  - Discipline – project and industry history
- Current PF = 1.41 (U2 = 2.15, U3 = 1.74, SS = 1.07)
  - Estimate based on several factors
    - Currently only 12.9% complete with direct construction. Typically would not reforecast PF until 20% complete with a particular scope
    - Assumes future Regulatory changes will not impair craft productivity
    - Design Reconciliation advantages (e.g. Tekla modeling)
    - Work Process Stream Improvements
- ETC PF of 1.15 to be realized through gradual improvements over 6 month period



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# CB&I Schedule Impacts Estimate Summary - \$2007 \$M June 2019 SCD Impacted/Partially Accelerated Case

MOVE FROM  
12/17 TO 6/19

Cost Area	Estimate Target	Estimate T&M
Indirect Construction Labor	\$65.3	\$3.4
FNM	\$65.5	\$0.2
Subcontracts	-	\$2.4
Distributables	\$72.5	-
FNM Expenses	\$1.0	-
Construction Equipment Fuel	\$4.4	-
<b>Total</b>	<b>\$208.6</b>	<b>\$6.0</b>



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## Conclusions

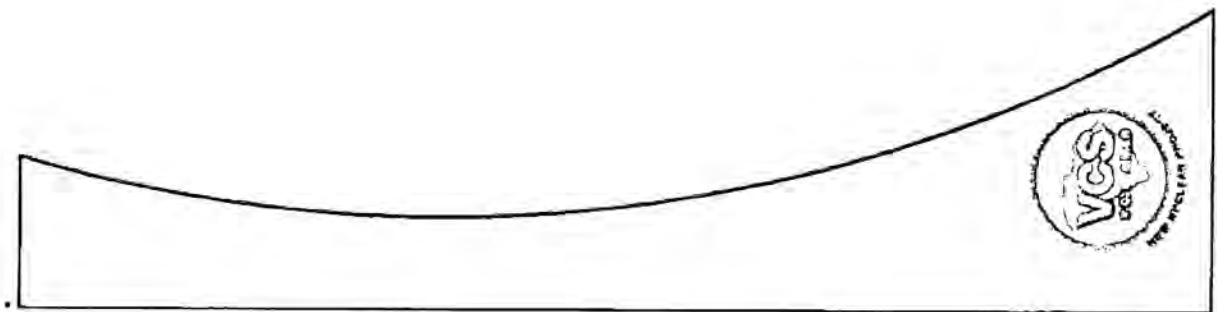
- Estimate includes aggressive actions to mitigate schedule and cost impacts.
- Project is actively pursuing other improvement opportunities to control Owner/Consortium costs.
- The Consortium EAC team will be available to provide additional supporting information and answer questions as needed.



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# Appendices

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## Client Change Orders

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# Site Layout Estimate Summary - \$2007 \$M

Cost Area	Estimate Target
Direct Labor – Site Specific	\$5.6
Indirect Construction Labor	\$1.8
FNM	\$2.5
Direct Subcontracts	\$5.9
Indirect Subcontracts	\$0.4
Distributables	\$0.8
FNM Expenses	-
Construction Equipment Fuel	-
Other Costs	\$3.4
<b>Total</b>	<b>\$20.5</b>



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## Site Layout

- Estimate development incorporated a bottoms up approach focused on the engineered quantities. The approach was similar to previously provided estimates including:
  - Indirect Craft was developed using crewed approach for work items
  - For Example: General site clean-up was based on ratios to direct craft as per the As-Sold estimate



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# Cyber Security Estimate Summary - \$2007 \$M

Cost Area	T&M
Indirect Construction Labor	\$0.1
FNM	\$5.6
Subcontracts	-
Distributables	\$0.2
FNM Expenses	\$1.0
Construction Equipment	-
Fuel	-
Start-Up Costs	-
Other Costs	\$1.7
Westinghouse	\$24.2
<b>Total</b>	<b>\$32.8</b>



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## Cyber Security

- The Consortium has identified approximately 180 commodities
  - 71 of the commodities are identified as being CB&I scope
- There are approximately 49 Standard Plant systems and 22 Site Specific commodities that are defined as critical.
- Direct Labor costs are based on an estimated 500 CDAs.
- CB&I will support WEC's lead in the development of a Critical Digital Asset Tamper Seal procedure (per Section 2.1.3 of the TD).
- CB&I estimates includes impacts associated with the revision and implementation of internal procedures
  - Initial estimate is a minimum of fifteen (15) procedures will be impacted by cyber security requirements

~~WEC'S~~ <sup>SC 14/15/16</sup>  
 INDEP. REVIEW  
 KATHAN - REUSE IMPROVE  
 BILLY WOODHEADS  
 WHAT'S NOT IN EST.  
 E-REVISION



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**To:** KOCHEMS, KEVIN R[KKOCHEMS@scana.com]  
**From:** SMITH, ABNEY A JR  
**Sent:** Thur 10/2/2014 8:42:38 AM  
**Subject:** Re: Estimated Escalation for EAC

Got it. Thanks

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

**From:** KOCHEMS, KEVIN R  
**Sent:** Thursday, October 2, 2014 8:41 AM  
**To:** SMITH, ABNEY A JR  
**Subject:** RE: Estimated Escalation for EAC

Skip,

No. The 1.2 we were talking about yesterday was 100% EPC. This 1.18 is 55% EPC, Owners, and Escalation.

Stop by if you get a second and I can walk you through this sheet.

Kevin

**From:** SMITH, ABNEY A JR  
**Sent:** Thursday, October 02, 2014 8:24 AM  
**To:** KOCHEMS, KEVIN R  
**Subject:** Re: Estimated Escalation for EAC

Kevin, is 1.18b at 55 percent the same 1.2 we were talking about yesterday which was 100 percent

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

**From:** KOCHEMS, KEVIN R  
**Sent:** Thursday, October 2, 2014 8:19 AM  
**To:** WALKER, CARLETTE L; BROWNE, KENNETH JEROME; WICKER, SHERI L  
**Cc:** SMITH, ABNEY A JR; WRIGHT, SUSAN CAROLE; BOOMHOWER, ERIC J  
**Subject:** RE: Estimated Escalation for EAC

Attached is a spreadsheet that summarizes the exercise Carlette discussed with you. We tried to put the numbers in context as best we could with the notes at the bottom of the sheet, but I can't emphasize enough how rough these numbers are. We still have a lot of work to do to produce a number we can defend.

Let me know and I'd be happy to walk you through what we did.

Kevin  
89826

---

**From:** WALKER, CARLETTE L  
**Sent:** Wednesday, October 01, 2014 8:08 PM  
**To:** KOCHEMS, KEVIN R; BROWNE, KENNETH JEROME; WICKER, SHERI L  
**Cc:** SMITH, ABNEY A JR; WRIGHT, SUSAN CAROLE; BOOMHOWER, ERIC J  
**Subject:** Estimated Escalation for EAC

Hey Kevin, Susan and Eric called me late this afternoon with a question about the estimated escalation on the EPC increased cost as rept'd to us. I shared that this was a request we made of the Consortium but that it was refused do far. I told them that you had made this calc but that it is a really rpoough cut based on a rough cut cash flow for that increase. I explained we had added a small increase by eliminating the use of the current 1 year HW and using the current 5 year HW. They are not planning to disclose this tomorrow (thursday) but wanted to begin collecting data for anticipated questions. Can you share this amount for SCEG (55%) after you get in? I have already explained that all of our disclosures to-date have been based on the 55% ownership. Please Cc myself and Skip on the email. We can talk further about this between meetings in the morning or on Friday. In my absence or presence, I told them you were the brain trust behind these numbers and told them to feel comfortable calling you directly if they have questions about the info you share.

Thanks so much, again!

Carlette



**From:** HINSON, BYRON W  
**Sent:** Thursday, October 2, 2014 4:42 PM  
**To:** KOCHEMS, KEVIN R  
**Subject:** FW: ORS question on current day \$\$s

---

**From:** SMITH, ABNEY A JR  
**Sent:** Thursday, October 02, 2014 2:19 PM  
**To:** HINSON, BYRON W; JOHNSON, SHIRLEY S; WALKER, CARLETTE L  
**Cc:** LANIER, CYNTHIA B  
**Subject:** Re: ORS question on current day \$\$s

I agree. Gene called me also and I told him that I would get with him later this afternoon. This may be an Anthony communication. I just don't feel comfortable giving out addition numbers. What do you think Carlette?

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

---

**From:** HINSON, BYRON W  
**Sent:** Thursday, October 2, 2014 1:45 PM  
**To:** JOHNSON, SHIRLEY S; SMITH, ABNEY A JR; WALKER, CARLETTE L  
**Cc:** LANIER, CYNTHIA B  
**Subject:** RE: ORS question on current day \$\$s

I simply don't think we should say anything other than we're working on it until Steve B is up to speed. What do you guys think?

---

**From:** JOHNSON, SHIRLEY S  
**Sent:** Thursday, October 02, 2014 1:28 PM  
**To:** SMITH, ABNEY A JR; WALKER, CARLETTE L  
**Cc:** HINSON, BYRON W; LANIER, CYNTHIA B  
**Subject:** ORS question on current day \$\$s

Carlette and Skip – I will be heading out soon for an offsite appointment, but I wanted to get back with you on this in the event you want to call Gene this afternoon. Byron and I just spoke concerning the question we received via voicemail from Gene Soult this morning. Specifically, Gene indicated that the ORS received the information on the \$660m estimate (2007 \$\$s) and wanted to know what this equated to in current day dollars. At this time, is the more accurate response to Gene's question the following?

The \$660m estimate consists of various EPC non-fixed, non-firm work scopes for which SCE&G is still evaluating. As such, the Owner has not yet been able to achieve a confidence level with the estimate such that it could accurately report with certainty a current day \$\$s estimate (which would include the yet-to-be-validated 2007 \$\$s estimate plus escalation). SCE&G's efforts to better understand the 2007 \$\$ estimate provided by the Consortium is still ongoing and as soon as SCE&G is able to provide current day \$\$s estimate information to the ORS, we will.

There is an internal EAC meeting ongoing at this moment, so the information above may not be up-to-the-minute accurate, but hopefully this email will create some additional dialogue prior to getting back with Gene. Thanks. sj

**From:** CHERRY, WILLIAM

**Sent:** Friday, October 3, 2014 9:20 AM

**To:** BROWNE, KENNETH JEROME; SMITH, ABNEY A JR; WALKER, CARLETTE L; KOCHEMS, KEVIN R; WICKER, SHERI L; JOHNSON, SHIRLEY S

**Subject:** RE: Phone call with Jeff Archie - Oct 1, 2014

Amen, brothers!

Marion Cherry

Santee Cooper Representative

New Nuclear Deployment-VCSNS

803-941-9818 (NND Office)

803-837-0147 (Cell)

843-761-8000 ext. 5175 (Moncks Corner Office)

---

**From:** BROWNE, KENNETH JEROME

**Sent:** Friday, October 03, 2014 8:06 AM

**To:** SMITH, ABNEY A JR; WALKER, CARLETTE L; KOCHEMS, KEVIN R; WICKER, SHERI L; JOHNSON, SHIRLEY S

**Cc:** CHERRY, WILLIAM

**Subject:** Re: Phone call with Jeff Archie - Oct 1, 2014

Skip, Preach on Rev....You hit the nail on the head! The Consortium response to every issue is another program, more people, more money. The new OSS group is a perfect example. in response to the failure of Project Controls doing their job, we got OSS. Included in the EAC is a deviation for \$1.5 M (I think, maybe more) for OSS. The reason given is excess Owner audits and billing questions. They never gave a thought to shifting positions, or dollars from Project Controls budget. And now we have more cost but the problems are not fixed. At least one half of their effort is hiding cost, not fixing problems. This month we got the bill for "impact resistant" work gloves (\$12,500). It should not be billed to us because we pay for PPE with labor markups. It sticks out like a sore thumb (sorry, but I had to say that) in the invoice detail, but our overpaid OSS did not catch it.

Bring this up and we will be challenged as petty because it's only \$12,500.

Until we demand performance, and penalize for failure, nothing will change.

Hope y'all have a good day, and weekend. Ken

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

---

**From:** SMITH, ABNEY A JR

**Sent:** Friday, October 3, 2014 6:04 AM

**To:** WALKER, CARLETTE L; KOCHEMS, KEVIN R; WICKER, SHERI L; JOHNSON, SHIRLEY S; BROWNE, KENNETH JEROME

**Cc:** CHERRY, WILLIAM

**Subject:** Re: Phone call with Jeff Archie - Oct 1, 2014

It's a good thing you've lost part of your voice. You'd be blasting out of my BlackBerry screen.

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

---

**From:** WALKER, CARLETTE L

**Sent:** Thursday, October 2, 2014 9:44 PM

**To:** SMITH, ABNEY A JR; KOCHEMS, KEVIN R; WICKER, SHERI L; JOHNSON, SHIRLEY S; BROWNE, KENNETH JEROME  
**Cc:** CHERRY, WILLIAM  
**Subject:** Re: Phone call with Jeff Archie - Oct 1, 2014

I agree 100%. We need actionable items on their (WEC and cbi) parts to drive change and let's quit talking about and around the problems. Just for the record, I don't have any emotion in my voice:)

---

**From:** SMITH, ABNEY A JR  
**Sent:** Thursday, October 2, 2014 9:15 PM  
**To:** WALKER, CARLETTE L; KOCHEMS, KEVIN R; WICKER, SHERI L; JOHNSON, SHIRLEY S; BROWNE, KENNETH JEROME  
**Cc:** CHERRY, WILLIAM  
**Subject:** Re: Phone call with Jeff Archie - Oct 1, 2014

A Lot of the same CBI talk on planning, protocol, briefings, presentations, alignments. So not very impressive in my opinion. As a wise old mentor once very bluntly suggested to me, get off your a--- and get out in the field and find out what's going on and get the job done without all the b---s---. CBI has productivity problems in the field. Can't meet a schedule. WEC keeps changing design that impact field and shops. The shops have quality and production problems. There are a multitude of procurement issues. The field non manuals and indirects are out of control. Cbl, one of the largest contractors in the universe can't find the necessary resources. Until cbi rolls up their sleeves and get connected in those and other problem areas and clean things up, until that happens. Then all of the alignment sessions, presentations, planning, protocol will be a waste of time and money. There will be continued delays and cost increases. As far as alignment on schedule and cost is concerned, that is going to be a very difficult and contentious process based on the cost information that we've been provided. Not a very positive outlook, but I'm somewhat turned off by a lot of talk but little action. For what it's worth.

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

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**From:** WALKER, CARLETTE L  
**Sent:** Thursday, October 2, 2014 8:12 PM  
**To:** SMITH, ABNEY A JR; KOCHEMS, KEVIN R; WICKER, SHERI L; JOHNSON, SHIRLEY S; BROWNE, KENNETH JEROME  
**Cc:** CHERRY, WILLIAM  
**Subject:** Fw: Phone call with Jeff Archie - Oct 1, 2014

For your review and insight into what Jeff and Don are thinking/planning.

---

**From:** ARCHIE, JEFFREY B <[JARCHIE@scana.com](mailto:JARCHIE@scana.com)>  
**Sent:** Thursday, October 2, 2014 4:48 PM  
**To:** 'DePierro, Don'  
**Cc:** 'Benjamin, Jeffrey A'; Christopher R. Levesque; JONES, RONALD A; BYRNE, STEPHEN A; 'Crosby, Michael'; Lyash, Jeff; WALKER, CARLETTE L  
**Subject:** FW: Phone call with Jeff Archie - Oct 1, 2014

My comments are in Red below.

Jeff A

**From:** DePierro, Don [<mailto:don.depierro@cbi.com>]

**Sent:** Wednesday, October 01, 2014 3:43 PM

**To:** ARCHIE, JEFFREY B

**Cc:** Lyash, Jeff; Benjamin, Jeffrey A; Christopher R. Levesque; Kenneth W. Hollenbach; JONES, RONALD A; Skudlarick, Josh

**Subject:** Phone call with Jeff Archie - Oct 1, 2014

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Jeff

The following is a summary of today's call. Please edit or add if necessary:

1. Planning process implementation is underway for short term, intermediate range and long range. Short Term POD is established and occurs each day to address the immediate, daily and short term needs. Intermediate Range Planning is up and running. Each week the team meets focusing on the 3 week look ahead, restraints, work package planning and material needs, work progress –v- plan and performance. The Long range Planning team is mobilized to address all the necessary activities and actions to assure successful execution at the work front. This team focuses on the EPC work streams and deliverables, including constructability problems to assure successful execution and no emergent, un-planned items interrupt or restrain work. Note these planning processes are being executed for the most part but are not in some cases very mature ( wet paint ).
2. The team will pursue Benchmarking of TVA Watts Barr's Long Range and Short Term Work Planning process if not done already.
3. Suggested an extended series workshops with SCANA Sr. Mgt. and Senior Consortium Management to better align the SCANA and the Consortium Senior Management on the EPC execution challenges, focusing on the Gaps, Challenges, Risk impacting Engineering, Procurement and Construction delivery process. Specific area we discussed Don was the shield building execution plan.
4. Craft Resources Discussion:
  - a. The following strategies and actions can be employed to draw and retain labor, presuming the work conditions and safety are good.
    - i. Wage Rate
    - ii. Per Diems
    - iii. Bonuses
    - iv. Work Hours
  - b. The Project coordinates with CBI Labor Relations and manages the above items on an enterprise or portfolio basis considering the immediate and wider geographical region.
  - c. Ken Hollenbach is the VC summer point person responsible for managing labor at the Project with assistance from and coordination with CBI Functional and Corporate Construction Management.
5. Ken / Chris and Ron will coordinate on conducting a labor management briefing for SCANA Management describing how the Project and CBI manages the above items (suggest it be included in an upcoming PRM) My comment was that we have this discussion first with Carlette's commercial team. The initial discussion needs to be outside of the PRM.
6. A protocol or process should be established for SCANA Management to participate and align with the Consortium on Cost –v- Schedule decisions related to craft wages, per diems and other cost drivers that will flow to the Target
7. CBI Module Management Team will provide a briefing on the Status of SMCI and CA03 (suggest it be included in an upcoming PRM). We expect this discussion to take place after the assessment is complete

and it does not need to wait on a scheduled PRM.

8. The Shield Building Execution Plan will be presented (suggest an upcoming PRM). Focus will be on erection by CBIS, ground fab plan, unit rates, sustained weld rates.
9. Schedule and Cost alignment
  - a. Need to decide on the "operational" Target Schedule – Consortium is currently working to the Sept 2018 IPS. Operational decisions are be made to support this schedule.
  - b. Ultimately need decide on the schedule for external communication purposes, ORS, etc.....
  - c. SCANA and Consortium need to align on overall EAC and in addition, the acceleration cost
  - d. Consortium is preparing acceleration cost and will provide forecast for completion
10. Understand Kevin Marsh, Danny Roderick and Phil Asherman are meeting on 10/13 where they may reach an understanding on a path forward for alignment on:
  - a. Cost
  - b. Schedule
  - c. Contract

Regards.....Don



**Donald DePierro**  
 Sr. Vice President  
 Nuclear  
 Power  
 +1 980--321-8232 Direct  
 +1 704--576-8428 Cell  
 +1 980-321-1310 FAX  
[don.depierro@cbi.com](mailto:don.depierro@cbi.com)

CB&I  
 128 South Tryon Street  
 Charlotte, NC 28202  
 USA  
[www.CBI.com](http://www.CBI.com)

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**EAC Review Team**  
**Preliminary Update**  
**Preparation for 10/13/14 Executive Meeting**



**KEN BROWNE, MARGARET FELKEL,  
KEVIN KOCHEMS, SHERI WICKER, AND  
KYLE YOUNG**

**CONFIDENTIAL DRAFT**  
**Prepared 10/6/2014**

## Introduction

- Acknowledging that the EAC Review Team (EAC Team) has not completed its review, this presentation is a summary of costs we believe the Consortium is not entitled to.
- Note that all dollar amounts are 100%, in 2007 dollars, and based on COD's of 12/18 and 12/19.

CONFIDENTIAL DRAFT – Prepared 10/6/2014



## CB&I Direct Craft Productivity

- CB&I projects the To-Go PF will be 1.15. (ITD PF as of 8/14 is 1.46.)
- EAC Team recommends holding CB&I accountable to this PF, only paying up to this level.
- EAC Team anticipates a To-Go PF closer to 1.40 and recalculated the cost, resulting in an additional increase of approximately \$101M. (This is the cost impact of the To-Go PF of 1.40 vs. 1.15 and is not included in the Consortium EAC.)
- This does not address excessive Indirect Craft present on site and an additional opportunity exists to challenge costs above established Direct/Indirect ratios.

CONFIDENTIAL DRAFT – Prepared 10/6/2014



## CB&I Schedule Impact

- CB&I estimates the Structural Module Delay in the schedule costs **\$221M**.
- Based on CB&I's estimating methodology, the EAC Team believes this to be an inflated cost. *Consortium did an estimate w/ a look forward to incremental cost we think least 13 months were the delay*
- EAC Team recommends \$0 entitlement as the delay is due to Structural Module Delays.
- In addition, CB&I has included a cost impact of **\$114M** from 2013 Basemat Rebar "WEC Design Issue" in the "Other Misc. Adjustments" column of the EAC. (It is assumed that this cost has already been incurred by the Owner.)

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## CB&I Contingency



- CB&I projects an additional \$77M of contingency for a total contingency of \$200M.
- EAC Team recommends removal of the \$77M from EAC, leaving \$123M remaining in contingency.
- Note: The Consortium Contingency account of \$123M has been restored due to inclusion of previous usage of contingency in the “Quantity Changes” and “Other Misc. Adjustments” categories of the EAC.

CONFIDENTIAL DRAFT – Prepared 10/6/2014

## CB&I Shield Building Risk



- In addition to the CB&I issues contained in the EAC provided by the Consortium, the EAC review team has identified an omission that should be mentioned
  - Construction of the Shield Building presents an additional risk to the Project.
  - Increasing the base labor hours for Shield Building erection to the original estimate quantities represents an increase of \$14.9M to the EAC at CB&I Services labor rates.

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## CB&I Field Non-Manual



- CB&I projects an increase in FNM costs of \$170M. <sup>total \$307M  
in "other" +</sup>
- EAC Team verified the EAC using the current CB&I FNM plan, which is lean. The EAC Team does not anticipate that CB&I will be able to comply with this plan.
- CB&I currently receives a contract based mark-up of 1.70 for all FNM labor costs. The Owner has verified on numerous occasions that the mark-up CB&I actually incurs on FNM labor costs is approximately 1.30.
- EAC Team recommends a reduction in FNM mark-up for all additional FNM costs above the original estimate using a 1.40 mark-up. This will result in an EAC reduction of approximately **\$48M.**

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## CB&I Acceleration

- CB&I projects an increase of approximately **\$168M** for acceleration to meet the December 2018/2019 SCDs.
- This cost is based on a limited night shift of 340 Direct Craft, 100 Indirect Craft, and 60 FNM. There is also an additional 100 FNM on day shift to support the night shift.
- The proposed September 2018/November 2019 schedule will result in additional acceleration impacts, not yet quantified by the Consortium.
- EAC Team recommends \$0 entitlement because the acceleration is necessary due to Structural Module Delays.

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## CB&I Woodlands Cuts

- CB&I cut the EAC by \$296M at a very high-level. How these cuts will be realized has yet to be determined.
- Under Target Price scheme, all actual costs are reimbursed.....

	Woodlands Adjustment	Project Adjustment	Total Adjustment
Indirect	(30,000)	-	(30,000)
↓			
FE Increase	(163,500)	-	(163,500)
FNM Reduction	(49,000)	-	(49,000)
Project Adjustment	-	25,000	25,000
FNM	(212,500)	25,000	(187,500)
Direct Subcontracts	(19,300)	-	(19,300)
Distribs	(37,000)	-	(37,000)
Escalation	(23,400)	-	(23,400)
OOMs	(532)	-	(532)
Project ICA	1,629	-	1,629
Other Costs	(22,303)	-	(22,303)
<b>Total</b>	<b>(321,103)</b>	<b>25,000</b>	<b>(296,103)</b>

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## WEC Schedule Impact

- WEC projects a delay in the schedule will cost \$76M.
- \$64M of the \$76M is due to increases in the CV subcontract cost. EAC Team found several errors in this estimate reducing the EAC impact to \$35M. (WEC has been requested to revise the EAC)
- \$12M of the \$76M is due to hotel load increases for Plant Start-up and Licensing.
- EAC Team recommends \$0 entitlement because the delay is due to Structural Module Delays.

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## Base Scope Refinement

- **EPC Management** -WEC has indicated that their 'best talent' approach, in addition to CB&I on-site management, will add WEC staff costs totaling approximately **\$22M**.
- WEC EPC Target work scope does not currently include this function or cost.
- EAC Team recommends \$0 entitlement as this cost is due to Consortium (CB&I) inefficiencies.
- **Licensing**-WEC projects an increase in the Licensing T&M costs totaling **\$28M**.
- EAC Team recommends \$0 entitlement as this is Firm Price work.

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## Regulatory Driven



- **Start-up and Testing** - WEC projects an increase in CVAP and FOAK testing of **\$23M**. (Waiting on WEC Cost...)
- EAC Team recommends all home office planning and procedure development be removed from the EAC and considered Firm price **\$11.5M**. (Pending receipt of WEC Cost)

*(CVAP) Comprehensive vibration program*

CONFIDENTIAL DRAFT -- Prepared 10/6/2014

## Owner Challenges



- The cost of unrealized savings projections that have been included in the EAC by the Consortium will be reimbursed under Target Price and T&M payment processes.
- Much of the costs for Structural Module Delays and PF Impacts have already been paid through Target Price payments.
- When it is determined these or similar costs will not be paid by the Owner, the process to ensure they are withheld from an invoice will be a significant challenge. (Consortium may not agree with the reductions).

CONFIDENTIAL DRAFT - Prepared 10/6/2014

**From:** WALKER, CARLETTE L  
**Sent:** Tuesday, October 28, 2014 11:37 AM  
**To:** ADDISON, JIMMY E  
**Subject:** Re: NND Finance Incentive Bonus Goals (2014)

Gotcha

Carlette Walker

---

**From:** ADDISON, JIMMY E  
**Sent:** Tuesday, October 28, 2014 11:32 AM  
**To:** WALKER, CARLETTE L  
**Subject:** Re: NND Finance Incentive Bonus Goals (2014)

Yep

Jimmy E Addison

---

**From:** WALKER, CARLETTE L  
**Sent:** Tuesday, October 28, 2014 11:31 AM  
**To:** ADDISON, JIMMY E  
**Subject:** Re: NND Finance Incentive Bonus Goals (2014)

To make sure I understand, review and analysis of EAC, review of schedule, analysis of starting negotiation position. Hopefully, we can have exec agreement and teams in process of reducing to a letter agreement in process.. basically, claim the accomplishments that support the filing with the deferral to 2015 for actual PSC application?

Carlette Walker

---

**From:** ADDISON, JIMMY E  
**Sent:** Tuesday, October 28, 2014 11:24 AM  
**To:** WALKER, CARLETTE L  
**Subject:** Re: NND Finance Incentive Bonus Goals (2014)

I agree with you and will make that recommendation at the appropriate time. I would say we need to respond that we "have met the portion of the goal that was achievable in 2014 and remainder will be accomplished in 2015 when the negotiations allow for the completion".

Make sense?

So rather than trying to get an exception let's approach it from the standpoint of how we have met it and what will be done in 2015.

Jimmy E Addison

---

**From:** WALKER, CARLETTE L  
**Sent:** Tuesday, October 28, 2014 10:52 AM  
**To:** ADDISON, JIMMY E  
**Cc:** JOHNSON, SHIRLEY S; WICKER, SHERI L; KOCHEMS, KEVIN R; PERRY, SHANNON; WALKER, CARLETTE L  
**Subject:** NND Finance Incentive Bonus Goals (2014)

Hey Jimmy - I have copied the NND Finance team's incentive bonus goals below. In the past, incentive bonus goals that were deemed unachievable due to uncontrollable circumstances were reviewed and changes made as appropriate. The one bonus goal that is unachievable for the NND Finance Team is our second goal. The Consortium's repeated delay in delivering the fully integrated schedule and the associated EAC from Q1 2014 to Q3 2014 coupled with the executive negotiation for the delay impact is going to force us to delay our filing until perhaps the end of Q1 2015. I would like to request that the incentive bonus goal for NND Finance be changed and a comparable goal be used to incent support to executives during the delay negotiations for the remainder of 2014 as:

2. Provide financial analysis, risk assessments and contract negotiation strategy input to executive team negotiating with Consortium to address the structural module delay impact to the NND project.
1. Execute an Overall NND Risk Management Plan or plans for each significant functional NND group, to include a risk register and mitigation plan (15%)
2. Develop a compelling case for re-base lining the project budget to include EPC and Owner's costs for PSC consideration and approval. (20%)
3. Approval of all significant costs incurred for the project for CWIP @ 6/30/2014 and incorporated into revised rates or an alternative accounting treatment provided. (20%)
4. Timely and accurate filing of quarterly BLRA reports and insure consistency between BLRA reports and SCEG/SCANA SEC filings. (20%)

Please advise if there is a different mechanism or protocol for requesting changes to IBG.

Thank you,  
Carlette Walker  
NND Finance  
(803) 217 -6323

[cwalker@scana.com](mailto:cwalker@scana.com)

Crosby, Michael

---

**From:** BYRNE, STEPHEN A <SBYRNE@scana.com>  
**Sent:** Tuesday, November 04, 2014 10:22 AM  
**To:** Crosby, Michael  
**Cc:** ARCHIE, JEFF - International  
**Subject:** RE: outside look at New Nuclear  
**Attachments:** Mickey Bob CV 2013.docx

Mike,

I don't disagree that the entity to offer guidance and advice doesn't have to have a nuclear background, in fact it may provide some benefit. Both of the entities we have contacted so far have mega project experience outside nuclear and have some recent nuclear experience. We are also looking for individuals who could come in, either contract or direct hire, and make an impact in the near term. I have attached a resume of one such individual, a former Fluor executive. We need to find the right balance getting hands dirty and high level advice.

Steve

---

**From:** Crosby, Michael [mailto:michael.crosby@santeecooper.com]  
**Sent:** Monday, November 03, 2014 5:43 PM  
**To:** BYRNE, STEPHEN A  
**Subject:** RE: outside look at New Nuclear

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Steve,

I am certainly open to considering any candidates that you think appropriate; however, my initial concept for this was to pursue likely (a name brand) A&E firm ... one with recent power plant design and construction experience.

Firms ... or individuals from firms like ... S&L, Worley Parsons, etc. ... who have successfully designed and built large power plants recently.

I know nuclear experience is very important to SCE&G and for many good reasons ... all of which I agree.

But frankly, I think SCE&G does a superb job managing the nuclear components of this project ... to include giving the Consortium proper guidance when and as needed.

To date, the deficit that I've witnessed on the project ... Owners to some degree but Consortium for sure ... is much more basic and fundamental. Consider these questions (to just mention a few):



1. How do you effectively perform (large) contract management in manner that protects both cost and schedule ... what do you look for ... what do you go after ... to gain improvements.
2. What does a comprehensive (resource loaded) construction schedule look like ... do we have one.
3. How do you effectively freeze engineering for the good of the project.
4. How do you properly manage the engineering hand-off to procurement ... and then to construction.
5. How do you organize and choreograph 2 or 3 thousand site people ...engineers, superintendents, craft labor, etc ... to work efficiently ... that is a sustained performance factor somewhere way south of 1.46 ☺
6. When do you staff up ... when should you staff down ... to be more efficient.
7. What are proper (and efficient) ratios for direct to indirect labor ... for field non-manual to craft labor.

Steve, I believe some basic (expert) guidance and advice in these areas would go a long ways towards helping us better manage the Consortium as a whole.

I'm not convinced the firm, individual or individuals needed at this point have to have deep nuclear roots ... just deep ... recent large power plant ... construction management experience and skills.

Food for thought ... all tendered in a loving spirit.

Happy to talk at your convenience.

Thanks,

Michael

---

**From:** BYRNE, STEPHEN A (<mailto:SBYRNE@scana.com>)

**Sent:** Friday, October 31, 2014 11:50 AM

**To:** MARSH, KEVIN B; ADDISON, JIMMY E; Crosby, Michael; CANNON, MARK R; JONES, RONALD A

**Cc:** ARCHIE, JEFFREY B

**Subject:** outside look at New Nuclear

We have previously discussed getting a third party look at our schedule and onsite efficiencies at VC Summer construction project. We are trying to find someone with mega project experience. Our previous experience with Pricewaterhouse Coopers was not good. NextEra (Florida Power & Light) indicated that they had a similar issue on their

extended power uprate project at St Lucie and brought in Highbridge to advise. We floated the idea by WEC and CBI on our Friday call and they did not object, they identified a concern with intellectual property, but thought that it could be worked through. CBI has experience with Highbridge and find them acceptable, WEC had a bad experience with Highbridge previously. We would like to vet 3 or 4 companies with the goal of retaining one if we believe there will be value added. I think we can eliminate PWC and Highbridge. If you have ideas we would be open. So far this is what we have:

Jeff and I spoke to at Andy Smart at Atkins Global. They are a UK based company with a North American office in Charlotte and were recommended by EPRI. They claim to be an 18,000 person consultancy with mega project experience at the International Thermonuclear Experimental Reactor (ITER) or fusion prototype in France and the EdF new nuclear build project in the UK. They also "designed" the London Olympics, were involved in the runway expansion at Atlanta's Hartsfield Jackson airport and Hoover dam bypass project.  
[www.atkinsglobal.com](http://www.atkinsglobal.com)

I spoke with Stewart Redding at Southern Cross Management Services Inc. They are a Canadian company, 14 years old, 25 people HQ in Waterloo with offices in Toronto, no biz in US currently. They claim Mega project experience on the Bruce Power refurbishment in Ontario, Canada and the Long Harbor mine project also in Canada.  
[www.southerncross.ca](http://www.southerncross.ca)

Steve

\*\*\*\*\*  
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Message

From: WALKER, CARLETTE L [/O=SCANA/OU=COLUMBIA/CN=RECIPIENTS/CN=CWALKER99]  
Sent: 11/10/2014 8:09:28 PM  
To: ADDISON, JIMMY E [/O=SCANA/OU=Columbia/cn=Recipients/cn=JADDISON]  
Subject: Re: Thursday mtg

Yes, I also have the benefit of talking with George Wenick

Redacted for Privilege

Redacted for Privilege

Carlette Walker  
Original Message  
From: ADDISON, JIMMY E  
Sent: Monday, November 10, 2014 2:38 PM  
To: MARSH, KEVIN B  
Cc: WALKER, CARLETTE L  
Subject: RE: Thursday mtg

Thanks Kevin.

Carlette, does this give you what you need?

Jimmy

From: MARSH, KEVIN B  
Sent: Monday, November 10, 2014 2:22 PM  
To: ADDISON, JIMMY E  
Cc: WALKER, CARLETTE L  
Subject: RE: Thursday mtg

I talked with Kenny this morning and we believe the message to ORS should be that we have had one initial meeting with the consortium and are still having discussions. They canceled the meeting last week because they were not ready. I believe there more discussions to come, but can't predict the outcome. We should not get into the details of the discussions to date. Kevin

From: ADDISON, JIMMY E  
Sent: Sunday, November 09, 2014 7:57 PM  
To: WALKER, CARLETTE L  
Cc: MARSH, KEVIN B  
Subject: Re: Thursday mtg

Sure. I am headed to Dallas tomorrow and Kevin is joining me on Tuesday for investor meetings through Thursday. I will talk to him and get back to you about negotiations. Quarterly will be filed tomorrow I believe (so we will have everything filed before our investor meetings start Tuesday afternoon) so there should be no issues with sharing anything in the report after that point.

Kevin, I'll copy you in case you can go ahead and provide Carlette any feedback on the negotiation points.

Jimmy E Addison  
From: WALKER, CARLETTE L  
Sent: Sunday, November 9, 2014 7:33 PM  
To: ADDISON, JIMMY E  
Cc: SMITH, ABNEY A JR  
Subject: Thursday mtg

Ron, Alan and I are scheduled for the first qtrly meeting with Dukes Scott this Thursday. Dukes has specifically indicated that he wanted me to provide him with updates on the EAC and the delay negotiations. Marion Cherry shared with our Commercial Team that the mtg scheduled for last week between WEC and CB&I's CEOs and the Owners' was cancelled. Rhonda O'banion sent an email out Friday from Steve that directed the project team to not share the normal financial project status graph for the total projected costs until after we have filed the Qtrly report. Can you help me to get some talking points on the negotiation status before the Thursday meeting and also confirm that the total projected cost slide could be shared after we file the BLRA Report tomorrow?

Thanks,  
Carlette

Carlette Walker



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**From:** BYNUM, ALVIS J JR  
**Sent:** Wednesday, December 17, 2014 5:58 PM  
**To:** Wenick, George; Pelcher, Steve; LINDSAY, RONALD; Baxley, Mike  
**Subject:** Fw: CBI EAC Contingency Dollars  
**Attachments:** CBI provided deviation status 12172014 (2).pdf

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

**From:** SMITH, ABNEY A JR <SASMITH@scana.com>  
**Sent:** Wednesday, December 17, 2014 5:24 PM  
**To:** BYRNE, STEPHEN A  
**Cc:** ARCHIE, JEFFREY B; JONES, RONALD A; WALKER, CARLETTE L; BYNUM, ALVIS J JR; BROWNE, KENNETH JEROME; JOHNSON, SHIRLEY S; WICKER, SHERI L; KOCHEMS, KEVIN R; CHERRY, WILLIAM  
**Subject:** CBI EAC Contingency Dollars

Steve, we met with CBI today to discuss their proposed process for tracking deviation costs in their EAC. They provided us the attached known deviations which represent costs that they are projecting to be absorbed by the contingency dollars in the EAC they previously presented to us. There is a contingency amount of \$200M included in the \$1.2B incremental target EAC dollars. The total deviation amount in the attached deviation status adds up to \$185M with the heavy hitters being craft wage rate adjustments (\$85M), craft per diem (\$53M) and CBI Services SB weld joint detail (\$25M). This leaves only \$15M left in the contingency dollars for the \$1.2B additional EAC projection. All these numbers are 100% dollars. Also, as you are probably aware, we received an invoice from WEC yesterday for \$70M to cover costs they claim to be regulatory driven per notice letters we received on Friday. These dollars are fixed/firm dollars and are not reflected in the EAC. One thing to note is that the \$185M and \$70M are 2014 dollars. The EAC is 2007 dollars. The \$185M and \$70M dollars would be \$150M and \$36M in 2007 dollars, respectively. Just wanted you to be informed of this during your discussions with the Consortium.

**Audit Services Department****Consulting Letter 15-C-05**

Subject: **New Nuclear Regulatory Reporting– March 2015 Petition Filing**  
 To: **Carlette Walker**  
 Cc: **William Hutson, Shirley Johnson, Kevin Kochems, Sheri Wicker**  
 From: **Iris Griffin**  
 Date: **March 16, 2015**

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**BACKGROUND**


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On March 12, 2015, South Carolina Electric & Gas Company (SCE&G) petitioned the Public Service Commission of South Carolina (the Commission) for an order approving an updated capital cost schedule and updated construction schedule for the construction of the new nuclear generation units (the Units).

The updated construction schedule reflects new substantial completion dates for the Units of June 19, 2019, and June 16, 2020, respectively, and incorporates approximately \$698 million in additional capital costs that have been identified since the issuance of Order No. 2012-884. These additional costs are due to a number of factors including the delay in the substantial completion dates of the Units and the additional labor and other costs required to construct the Units and prepare for their operation. The capital cost estimate for which SCE&G seeks Commission approval in this proceeding is currently \$5.2 billion in 2007 dollars.

SCE&G submitted both a confidential version and a public version (with certain confidential details removed) of the petition and its exhibits. All financial information submitted reflects only SCE&G's share of the Units' construction costs.

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**SCOPE**


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Objective: To provide reasonable assurance that the petition filing was completed and submitted accurately based on updated cost and timing projections

Source: 2015 Management Request

Our review occurred in conjunction with the preparation and review of petition components. We reviewed the reporting process, with specific attention to the financial model used to compile the actual project costs to-date and the projected cash flows for the completion of the construction project. We reviewed financial data and revisions to the petition as soon as they became available and continued to do so until the petition was finalized.

**Audit Team:** Sharon Berry, CPA; Kenny Sexton, CIA; Joey Gillespie; Michelle Varnadore; Courtenay Owen

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**About Consulting Engagements:**

SCANA's Audit Services Department (ASD) may perform client service engagements intended to improve SCANA's governance, risk management, and control processes. Consulting services do not provide assurance as to the adequacy and effectiveness of internal controls as do audit engagements. Internal business consulting engagements can include fraud deterrence, detection and investigation activities, merger/divestiture/acquisition valuations and due diligence, financial modeling, advisory participation in management committees and project teams, internal training seminars and other special projects. The nature and scope of engagements are agreed upon by the client and audit management and objectives are determined to meet the needs of clients requesting the services. Results of consulting engagements vary in form and content, depending on the nature of the work and client needs. Generally, consulting reports/letters are issued to clients requesting the services, and management responses to observations or recommendations are not required unless specifically requested by ASD.

**South Carolina Electric & Gas Company  
New Nuclear Regulatory Reporting  
March 2015 Petition Filing  
Consulting Letter 15-C-05  
March 16, 2015**

Page 2 of 2

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## RESULTS

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We provided recommendations to the team for data corrections and format changes throughout our review process. Those deemed appropriate by the team were incorporated into the petition. We do not have any significant observations or unresolved recommendations.

**From:** KOCHEMS, KEVIN R(/O=SCANA/OU=COLUMBIA/CN=RECIPIENTS/CN=KKOCHEMS)  
**To:** WALKER, CARLETTE L; SMITH, ABNEY A JR  
**CC:**  
**BCC:**  
**Subject:** FW: ORS 1st Continuing Audit Info. Request - Docket No. 15-103-E; BLRA Update Petition - WITH ATTACHMENTS  
**Sent:** 03/27/2015 02:00:00 AM -0400 (EDT)  
**Attachments:** ORS 1st AIR SCEG Docket 2015-103-E.doc.3.27.15.pdf; ORS 1st AIR SCEG Docket 2015-103-E.doc; 1st AIR Attachments 1 through 4 2015-103-E.3.27.15.xlsx;

Carlette,

I was substitute Monday's B&F meeting and instead a smaller group talk about who is going to answer what questions and how we are going to answer them. Once you read them you will see there are many ways we can answer each question.  
 Kevin

**From:** BURGESS, KENNETH CHAD  
**Sent:** Friday, March 27, 2015 3:42 PM  
**To:** SMITH, ABNEY A JR; WALKER, CARLETTE L  
**Cc:** HINSON, BYRON W; GISSENDANNER, MATTHEW W; HUTSON, WILLIAM V; KOCHEMS, KEVIN R  
**Subject:** FW: ORS 1st Continuing Audit Info. Request - Docket No. 15-103-E; BLRA Update Petition - WITH ATTACHMENTS  
 Skip and Carlette -

ORS has served Audit Information Requests upon SCE&G in the NND Update docket, a copy of which are attached to this email.

Redacted - Attorney-Client Privilege

Redacted - Attorney-Client Privilege

Chad

**From:** Hudson, Shannon [<mailto:shudson@reqstaff.sc.gov>]  
**Sent:** Friday, March 27, 2015 10:23 AM  
**To:** BURGESS, KENNETH CHAD; GISSENDANNER, MATTHEW W; [bzeigler@popezeigler.com](mailto:bzeigler@popezeigler.com)  
**Cc:** Nelson, Jeff; James, Anthony  
**Subject:** RE: ORS 1st Continuing Audit Info. Request - Docket No. 15-103-E; BLRA Update Petition - WITH ATTACHMENTS  
 \*\*\*This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from a trusted source.

Anthony just pointed out that I left off the AIR attachments.

I re-attached the request along with its attachments.

Sorry about that,

Shannon

**From:** Hudson, Shannon  
**Sent:** Friday, March 27, 2015 10:08 AM  
**To:** BURGESS, KENNETH CHAD ([chad.burgess@scana.com](mailto:chad.burgess@scana.com)); [matthew.gissendanner@scana.com](mailto:matthew.gissendanner@scana.com); [bzeigler@popezeigler.com](mailto:bzeigler@popezeigler.com)  
**Cc:** Nelson, Jeff; James, Anthony  
**Subject:** ORS 1st Continuing Audit Info. Request - Docket No. 15-103-E; BLRA Update Petition

Good morning,

Attached please find ORS's First Continuing Audit Information Request for Docket No. 2015-103-E, the BLRA Update Petition. I also attached the Word version.

Please confirm receipt and let us know if you are good with accepting electronic service. We are happy to place a hard copy in the mail if you like.

Best regards,  
Shannon  
**Shannon Bowyer Hudson, Esquire**  
Deputy Chief Counsel  
Legal Department  
South Carolina Office of Regulatory Staff  
1401 Main Street, Suite 900  
Columbia, SC 29201  
<http://www.regulatorystaff.sc.gov/>  
E-mail: [shudson@regstaff.sc.gov](mailto:shudson@regstaff.sc.gov)  
Tel.: 803.737.0889  
Fax.: 803.737.0895

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**To:** WALKER, CARLETTE L[CWALKER@scana.com]  
**Cc:** KOCHEMS, KEVIN R[KKOCHEMS@scana.com]; BROWNE, KENNETH JEROME[KENNETH.BROWNE@scana.com]  
**From:** WICKER, SHERI L  
**Sent:** Tue 5/5/2015 5:09:38 PM  
**Subject:** EAC Docs  
EAC Review Team Action Items Final 11-11-14.xlsx  
Copy of EAC Validation Report - May 2015.docx

*Sheri L. Wicker*  
*SCE&G New Nuclear Project*  
*NND Finance*  
*Tel 803-941-9825 (x89825)*

EAC Review and Validation*										
Revised By: Sheri Wicker						Date Revised:		11/11/14		
* The purpose of this exercise is to understand the basis of the Consortium's EAC. Closure of an Action Item does not imply Owner concurrence with the Consortium's position.										
ACTION ITEM No.	DATE OPENED	OWNER CONTACT	U2 SCD	DESCRIPTION	CONSORT MEMBER	RESPONSIBLE PERSON	COMPLETION DATE	NOTES	Consortium Responses	STATUS
1	08/29/14	Ken Browne	December 2018 June 2019	CB&I S&W to provide supporting documentation for EAC.	CB&I	Joe Arostegui	09/05/14	Meeting scheduled for 09/05/14 7 am - 10 am. Partial submittal of documentation received via email 09/03/14.		Closed
2	09/02/14	Ken Browne	December 2018 June 2019	CB&I S&W to provide mapping between Progress Tracker database and EAC Summary categories.	CB&I	Joe Arostegui	09/03/14	Owner received email.		Closed
3	09/04/14	Sheri Wicker	June 2019	Reference Column "Schedule Impact ", Containment Vessel \$61,250: Owner requests copies of WEC/CB&I Services documents used to compute \$35,000 of the \$61,250.	WEC	JoAnne Hyde		WEC will provide Owner with access to on-site review. Owner has contacted CB&I Power Management to request assistance with obtaining Owner copy of documents. Meeting requested between WEC and Owner 09/23/14.	WEC 09/05/14 - The Containment Vessel Change Order Request from CBI Services is available for viewing by Owner on-site. Distribution of copies is not approved by CBI Services WEC 09/19/14 - Hardcopy release pending response from D. De Piero	Closed
4	09/04/14	Sheri Wicker	June 2019	Reference Column "Schedule Impact", Plant Startup & Testing \$4,050: Backup documents indicate these costs are based on 14 FTE's. Provide the mathematical calculations that support these numbers. What is the basis for the 14 FTE's? What is the basis for 38,100 hours?	WEC	JoAnne Hyde	09/05/14		WEC 09/05/14 - 38,100 hours * \$106.20 Blended Rate = \$4,050 Basis for 14 FTEs is current staffing - (reference monthly Start Up invoices) 147.3 hours/month * 18 months * 14 FTE = 38,100 hours	Closed
5	09/04/14	Sheri Wicker	June 2019	Reference Column "Schedule Impact": What delay period has been considered in establishing these schedule impact costs?	WEC	JoAnne Hyde		Reference Action Item No. 41 dated 09/09/14	WEC 09/05/14 - 18 months for the Impacted Partially Accelerated; and 12 months for the Accelerated. <del>As discussed in the meeting on 9/10/14</del> WEC 09/05/14 - 41,750 hours * \$168.80 Blended Rate = \$7,050 Basis is current levels of effort. 15.75 FTE * 147.3 hours/month * 18 months = 41,750 hours	Closed
6	09/04/14	Sheri Wicker	June 2019	Reference Column "Schedule Impact", Licensing \$7,050: Backup documents indicate these costs are based on 15.75 FTE's. Provide the mathematical calculations that support these numbers. What is the basis for the 15.75FTE's? What is the basis for 41,750 hours? What work scope is considered in this cost estimate?	WEC	JoAnne Hyde			Includes Site licensing plus augmented support from home office - about 60% site and 40% home office The scope includes evaluation, preparation and support of licensing changes including LARs and Departures, any NRC meetings supported on behalf of the Owner, responses to NRC questions, and any other licensing support. FTEs are based on current levels of effort.	Closed

ACTION ITEMS - Template Version 1.0

7	09/04/14	Sheri Wicker	June 2019	<p><u>Reference Column "Base Scope Refinement", EPC Mgmt. \$31,500:</u> What is the basis for number of FTE's and months used in the estimate? Provide the mathematical calculations that support these numbers. What work scope is being considered in this cost estimate? Provide justification for using G-2 rates. Provide basis used to determine costs (names/titles).</p>	WEC	JoAnne Hyde	09/05/14	<p>WEC 09/05/14 -FTE's are based on a estimate from Project Management. It is intended to include milestone management, issue management, On Site Control Center (OCC), Strategic Planning Team, and other anticipated focus areas. Names will change over the duration of the project as people are assigned to this role. This is work was not part of the Westinghouse scope of supply, therefore G-2 rates are being applied. Names/titles for work performed thus far will be provided later.</p>	Closed
8	09/04/14	Sheri Wicker	June 2019	<p><u>Reference Column "Base Scope Refinement ", Containment Vessel \$25,000:</u> What is the basis for this number? The WEC documentation used to support this number does not show the \$25,000. Owner requests copies of CBIS documents to support the detailed scopes of work that add to the \$25,000.</p>	WEC	JoAnne Hyde	09/05/14	<p>WEC 09/05/14 - \$25M is the delta from the original estimate and the current purchase order (\$68.7 - \$93.7). A list of specific change orders which have been executed are in the Supporting Documentation Book. The change orders over \$250K, the previously agreed threshold, have been previously audited by the Owner. Owner can schedule an additional audit if necessary. CBIS estimates were used as the basis for the Miscellaneous Future CV Change Notices and will be provided to the Owner. However the amount included in the EAC was a probabilistic weighted estimate of the anticipated negotiated amount: (Probability = 70%, low - \$13M, mid \$14M, high \$18M) which yielded a value of \$10M included in the \$93.7M Current Estimate Total.</p>	Closed



ACTION ITEMS - Template Version 1.0

9	09/04/14	Sheri Wicker	June 2019	<u>Reference Column "Base Scope Refinement". Plant Startup and Testing \$15,000:</u> The documentation provided shows total costs of \$76,047. What is the basis for number of FTE's and months used in the estimate? Provide the mathematical calculations that support these numbers. Confirm that the \$15,000 is the difference between \$76,047 and the original T&M Allowance of \$61,047? Owner received an additional document, "ITP Summary". How does the \$76,047M reconcile to the \$89.3M referenced as T&M in the "ITP Summary"?	WEC	JoAnne Hyde	09/05/14	WEC 09/05/14 - The FTE data was derived from the Start Up Group as derived from the Integrated / Partially Accelerated Project Schedule activities. A White Paper was provided to Owner GM of Operational Readiness to explain the process. The monthly duration of Start Up activities varies and is detailed in the White Paper.  # of FTE's for each respective role description per each respective year * 1768 saleable labor hours per year * applicable G 1 rate = \$76,047  Confirmed : \$15M = current estimate (\$76,047) - EPC contract designated funding (\$61.0M)  The \$89.3 represents the internal Westinghouse cost. Actual invoices are per the rates in G-1 as per contract and were estimated at \$76.0M.	Closed
10	09/04/14	Sheri Wicker	June 2019	Reference the "ITP Summary" document: Were the Open Items listed on pages 10 - 11 addressed in the EAC calculation?	WEC	JoAnne Hyde		Reference Action Item No. 42 dated 09/09/14  WEC 09/05/14 -The estimate did not include costs to resolve the open items on page 10-11 of the ITP Summary WEC 09/19/14 -The estimate did not include costs to resolve the open items on page 10-11 of the ITP Summary except for the first two bullets: FPOT and F3POT (included in the \$22M FPOT/F3POT estimate value), and control system I&C support during preoperational testing (included in the \$76M value).	Closed
11	09/04/14	Sheri Wicker	June 2019	<u>Reference Column "Base Scope Refinement". Plant Startup and Testing \$15,000:</u> Will further schedule acceleration (potential U2 SCD September 2018) impact these costs?	WEC	JoAnne Hyde	09/05/14	Reference Action Item No. 43 dated 09/09/14  WEC 09/05/14 -Yes. It is anticipated that more oversight and support will be required as a higher number of tests are completed in parallel. Estimates have not yet been developed to support the September 2018 schedule.	Closed

ACTION ITEMS - Template Version 1.0

12	09/04/14	Sheri Wicker	June 2019	<p><u>Reference Column "Base Scope Refinement", Licensing \$30,000:</u> What is the basis for number of FTE's and months used in the estimate? Provide the mathematical calculations that support these numbers. Provide justification for using G-2 rates. What work scope is being considered for this estimate?</p>	WEC	JoAnne Hyde	09/05/14		<p>WEC 09/05/14 - # of projected FTE's for each respective role description per each respective year * 1768 saleable labor hours per year * applicable G-2 rate = \$30M Includes Site licensing plus augmented support from home office - about 60% site and 40% home office</p> <p>G-2 Rates are used per Exhibit G.1.1 provision and the limit of \$2.2M is assumed to be exceeded for this exercise. The scope includes evaluation, preparation and support of licensing changes including LARs and Departures, any NRC meetings supported on behalf of the Owner, responses to NRC questions, and any other licensing support. FTEs are based on an overall anticipated level of effort.</p>	Closed
13	09/04/14	Margaret Felkel	June 2019	<p>WEC to review the Model for Vendor Change Orders with Owner for Cyber Security.</p>	WEC	JoAnne Hyde	09/05/14	Owner will have additional questions during negotiations of change order.	<p>WEC 09/05/14 -Model provided as an estimating tool for Owner consideration. Reference email from J. Hyde 9/2/2014</p> <p>WEC 09/05/14 -For the prior years, the calculation for VCS impact is applied as follows: VCS payroll * 8% calculated value * percent impact of the Affordable Care Act. The HR department provided the health care costs as a percent of total payroll based on actual claims resulting in an average calculated value was 8%. A base ratio was set for the number of dependents per employee in 2010 before the Act based on experience.</p>	Closed
14	09/04/14	Margaret Felkel	June 2019	<p><u>Reference "Regulatory" Column, Affordable Care Act \$5,000:</u> What is the basis for the healthcare costs as a percentage of payroll and OHC as percentage of total healthcare costs? What is the basis for the 5.35% SGA and 14.44% Profit? Reconcile actual EAC costs with draft Change Order provided to Owner. Provide number of employees, titles and pay rates used in the total payroll category by year (actual and estimated). What percentage of total AP1000 payroll does this estimate represent (Vogtle vs. China vs. VCS)? Owner requests review of document, "Timeline for Phase In of Affordable Care Act", specifically, how timing of the provisions of Act are incorporated into the estimate.</p>	WEC	JoAnne Hyde	09/05/14	Owner will have additional questions during negotiations of change order.	<p>For current and future years, the Affordable Care Act impacts were supplied by HR based on a projection from the third party benefits provider.</p> <p>SGA percentage of 5.35% has been consistently applied to change orders as per the original cost books since the beginning of the project as there is no stated SGA rate in the contract. Profit is applied without the first mover discount (14.44%) for Change Order work which is not T&amp;M, and is consistent with past change orders as there is no stated profit rate in the contract. The Affordable Care Act is a Change in Law and therefore rates were applied as per the contract Change</p>	Closed

ACTION ITEMS - Template Version 1.0

15	09/04/14	Kevin Kochems	June 2019	<p><u>Reference Column "Regulatory Driven", Plant Startup &amp; Testing</u>                      \$22M:                      Provide justification for use of G-2 rates.                      Provide the basis for the hours used for each of the tests/items listed?                      Provide assurance that this estimate includes the costs for both units?</p>	WEC	JoAnne Hyde	Meeting held 09/24/14 between Owner and WEC .	<p>WEC 09/05/14 -G-2 Rates were used for Regulatory Changes (CVAP/ FPOT) because this is considered as new scope to comply with Owner's license.                      The hours estimate was developed by the startup groups.                      Costs represent the scope for both units.                      CVAP instrument work is only performed on 1 unit; while non-instrument work is performed on both. Suggest a separate meeting focused on CVAP and FPOT scope.                      WEC 09/05/14 -The Project Management scope was estimated by the startup groups based on their estimation of need for a first of a kind testing. Suggest a separate meeting focused on the CVAP and FPOT scope.                      10/31/14 The Westinghouse Project Management estimate remains unchanged for this scope. It is estimated at ~20% due to the first of a kind nature of this work.</p>	Closed
16	09/04/14	Kevin Kochems	June 2019	<p><u>Reference Column "Regulatory Driven", Plant Startup &amp; Testing</u>                      \$22M:                      Within the WEC backup, \$445,767.04 was provided as the dollars for "Project Management". Provide support for this calculation.</p>	WEC	JoAnne Hyde	Meeting held 09/24/14 between Owner and WEC . WEC will resubmit EAC when estimate becomes available (week ending 10/03/14)	<p>WEC 09/05/14 -Materials were not included in the EAC estimate and are not listed in the Supporting Documentation. EAC estimate also includes a portion of work to be performed to CB&amp;I. Suggest a separate meeting on the scope of this work as the cost estimates need to be refined in conjunction with Owner.WEC 09/19/14 - The estimate did not include costs to resolve the open items on page 10-11 of the ITP Summary except for the first two bullets: FPOT and F3POT (included in the \$22M FPOT/F3POT estimate value), and control system I&amp;C support during preoperational testing (included in the \$76M value).                      10/31/14 The estimate has been refined. the new estimate is \$30M</p>	Closed
17	09/04/14	Kevin Kochems	June 2019	<p><u>Reference Column "Regulatory Driven", Plant Startup &amp; Testing</u>                      \$22M:                      Does this increase include test data analysis and test equipment/supplies?</p>	WEC	JoAnne Hyde	Meeting held 09/24/14 between Owner and WEC . WEC will resubmit EAC when estimate becomes available (week ending 10/03/14)	<p>WEC 09/05/14 -Materials were not included in the EAC estimate and are not listed in the Supporting Documentation. EAC estimate also includes a portion of work to be performed to CB&amp;I. Suggest a separate meeting on the scope of this work as the cost estimates need to be refined in conjunction with Owner.WEC 09/19/14 - The estimate did not include costs to resolve the open items on page 10-11 of the ITP Summary except for the first two bullets: FPOT and F3POT (included in the \$22M FPOT/F3POT estimate value), and control system I&amp;C support during preoperational testing (included in the \$76M value).                      10/31/14 The estimate has been refined. the new estimate is \$30M</p>	Closed

ACTION ITEMS - Template Version 1.0

18	09/04/14	Kevin Kochems	June 2019	Reference Column "Regulatory Driven", ITAAC Maintenance \$3M: Provide detailed scopes of work that build-up this amount? Provide justification for use of G-2 rates. Provide detailed original ITAAC budget?	WEC	JoAnne Hyde			WEC 09/05/14 - This estimate was intended to coincide with the scope agreed with Owner per the T&M authorization process. It is viewed as a Change in Law under the contract and is not a part of base scope therefore G-2 rates were applied. Incremental costs will be billed at actual hours for such scope as agreed with Owner per the T&M authorization form. The original base scope ITAAC budget is part of Firm Price and not subject to Owner's review.	Closed
19	09/04/14	Kevin Kochems	June 2019	Reference Column - Various: Provide basis of 147.3 hrs used to calculate FTE month.	WEC	JoAnne Hyde	09/05/14		WEC 09/05/14 - 2080 hours per year - (nonsalable factor of 15% to include: average amount of vacation, holiday, sick, non project time for the employee population) / 12 months = 147.3 hours per month	Closed
20	08/29/14	Ken Browne	December 2018 June 2019	Verify that costs of Shield Building Mast Climbers are included in the EAC?	CB&I	Joe Arostegui			Estimate includes funds from CO 16 - no additional forecast is included for Mast Climbers	Closed
21	08/29/14	Ken Browne	December 2018 June 2019	Confirm that the basis for the Shield Building erection costs for CB&I Services in the EAC matches the 22 month erection schedule.	CB&I	Joe Arostegui			Yes - 22 month erection schedule (per unit) is basis for Shield Building erection costs.	Closed
22	08/29/14	Margaret Felkel	December 2018 June 2019	Confirm that the EAC does not include any FNM Living Allowance or Relocation costs. Per Change Order 8, these costs are Firm Price.	CB&I	Joe Arostegui			Corrected. On the Acceleration in the presentation, there was a mistake. The \$7.5M will be removed from Target	Closed
23	08/29/14	Ken Browne	December 2018 June 2019	Provide a detailed explanation for the costs included in the "Other Misc Adjustments" Column.	CB&I	Joe Arostegui		Response provided by CB&I via email dated 09/12/14 to Owner is incomplete. Owner requested additional information on 09/12/14. CB&I 09/23/14 - CB&I confirmed still awaiting details on the costs. Owner comments - CB&I emailed documentation on 09/25/14 and meeting was held 09/30/14 to discuss supporting documentation. Reference Action Item No. 49 - 51 for additional questions.	Closed	
24	08/29/14	Kevin Kochems	December 2018 June 2019	Provide high level estimated cash flows by quarter by September 5, 2014.	CB&I WEC	Joe Arostegui JoAnne Hyde		Reference Action Item No. 44 dated 09/09/14	WEC 09/05/14 - High level estimates by year, as available, were included in the Westinghouse Supporting Documentation.	Closed
25	08/29/14	Kevin Kochems	December 2018 June 2019	Provide detailed estimated cash flows by quarter by October 13, 2014.	CB&I WEC	Joe Arostegui JoAnne Hyde			WEC 09/05/14 - For Westinghouse, the ability to provide this is contingent on a detailed schedule being available for the individual detailed milestones. At the present time, only the June schedule has the detail to support a cash flow on a monthly basis.	Deferred

26	09/04/14	Kevin Kocherns	December 2018 June 2019	Provide additional details regarding the escalation/de-escalation methodology used to calculate the EAC.	CB&I WEC	Joe Arostegui JoAnne Hyde				<p><b>WEC Response 09/09/14</b> - westinghouse portion addressed in email from J. Hyde 9/2/2014:</p> <p>4) De-escalation Methodology: CB&amp;I Response 09/09/14 - ...De-escalated current day \$ to 2007 \$ based on Alpha Resources for Craft and Handy Whitman for Non Craft costs</p> <p>a. Target - EPC Management shown in Target Price was estimated at T&amp;M rates in \$2007; CB&amp;I Services CNs have the de-escalation formulas in the spreadsheet (mostly 1.0694) reference: backup spreadsheet tab "CB&amp;I Services CNs" right column labeled 2007\$M;</p> <p>b. Time &amp; Materials estimates were rates per the contract in 2007\$.</p> <p><b>CB&amp;I Response 09/09/14</b> - ...De-escalated current day \$ to 2007 \$ based on Alpha Resources for Craft and Handy Whitman for Non Craft costs</p> <p><b>Response from CB&amp;I 09/09/14:</b></p> <p>De-escalated current day \$ to 2007 \$ based on Alpha Resources for Craft and Handy Whitman for Non Craft costs</p>	Closed
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## VC Summer Units 2 & 3, 2014 EAC Analysis and Discussion of Cost Changes

Report prepared by Owner's EAC Review and Validation Team

Ken Browne – NND B&F  
Margaret Felkel – NND B&F  
Kevin Kochems – NND B&F  
Sheri Wicker – NND B&F  
Kyle Young – NND Construction

This report was prepared based upon an analysis of the revised EPC Project Estimate at Completion (EAC) for Target and T&M cost categories as prepared by the EPC Consortium and presented to the Owner on August 29, 2014. Subsequent to the Consortium presentation the Owner's EAC Review Team convened and conducted a detailed review of the data as presented and as provided at later dates as requested to support the original presentation. Several subsequent meetings were conducted with various members of the Consortium team to review the additional data and discuss the estimate. This report was prepared based on use of the December 2018/December 2019 Substantial Completion Dates for Units 2 & 3 respectively.

### Discussion of the EAC Details:

(In the order presented on the Client Summary Sheet)

#### 1.0 2007 \$'s Sch @ CO-16 PSC Approved

This column provides the cost basis for Target and T&M costs for both CB&I and WEC as it existed in the Consortium budget at the execution of the CO-16 "Settlement Agreement" (July 2012), with the exception of "Deviations" for identified Consortium Contingency usage prior to that time. This budget included an EPC Target Price Consortium Contingency of approximately \$130 Million. The total EPC Consortium budget for Target Price was \$1,935,976,000 and for T&M Price was \$302,748,000.

#### 2.0 Site Layout C.O.

This column provides the cost estimate for site layout modifications requested by the Owner related to re-defined security requirements. This is an "Owner –Directed" Change and the Consortium is entitled to 100% of the actual cost. It should be noted that in addition to the Target and T&M costs indicated in the EAC, there are additional Firm Price cost impacts which are not included in the EAC. At the time of EAC submittal, this Change Order had not been submitted and the estimated Target Price cost is \$20,465,000 and the estimated T&M cost is \$36,000 (Excluding CB&I G&A and Profit to be added later in the EAC template). Subsequent to submittal of the EAC, revised prices for the Change Order were submitted and the total Target Price impact of the Site Layout Changes has increased to \$36,000,000 with \$43,000 T&M and an additional Firm Price impact of \$21,000,000. All costs presented are in 2007 \$'s. The EAC analysis spreadsheet has been updated to reflect this additional cost.

There is no WEC cost impact from this Change.

3.0 Cyber Security C.O.

This column provides the cost estimate for additional Cyber Security provisions required for VCS Units 2 & 3 due to Regulatory Changes by the US NRC. Due to the uncertainty surrounding the Cyber Security Change Order, all costs are included in the T&M Price category by the Consortium. The Owner continues to negotiate the work scope included in this Change and monitor the costs of this work evolution. Subsequent to the EAC submittal, the projected T&M cost impact to CB&I is \$10,030,582 and \$24,180,500 to WEC (including G&A and Profit to each Consortium party). Both parties are entitled to full compensation for the performance of the negotiated scope at EPC controlled T&M rates, as this Change is related to a "Change in Law." In addition to the amounts listed above, there will be further costs associated with Vendor Change Order T&M work. These costs are not included in the current T&M proposal as the work is dependent on a number of estimates and assumptions that are unknown at this time. The Consortium will invoice these costs to the Owner via separate change orders as they are identified and incurred. For the purposes of this EAC review, the Owner has estimated \$7,500,000 for the total sum of the Vendor Change Orders. However, it should be noted that this is a broad estimate and that the total cost could be much higher or lower. Although these costs were not included in the EAC by the Consortium, the Owner believes that the Consortium is entitled to the total amount.

4.0 Quantity Changes

This column addresses the additional CB&I craft labor costs associated with commodity quantity changes that have been identified since the original estimate was developed and incorporated in approved "Deviations". These quantity changes are the result of design change/refinement and site specific issues. The costs of all commodities are included in the Firm Price and are not included here. In addition, CB&I has used this column to shift categories for two specific work scopes (Shield Building Erection and HVAC) from self performed to sub-contract. This is represented by the \$57,575,000 included in the Direct Subcontracts line. Corresponding reductions are included in the Unit 2 and Unit 3 Direct Labor costs, but they can't be identified in the summary sheet. The Owner agrees that the Consortium is entitled to 100% of this cost through the normal Target Price billing. The EAC total is unchanged at \$87,346,000 + G&A and Profit and Entitlement is the same amount.

5.0 Craft Productivity

This column accounts for the lack of productivity and additional labor costs within the Direct Craft category. The original budget assumed a PF of 1.00. This column takes the PF to an overall 1.19, using a 1.15 To-Go PF. As of 12/2/14 (for reporting period through October 2014), the Productivity Factor (PF) for the project to date was 1.49. In the four subsequent months since receipt of the EAC, the ITD PF has increased steadily from 1.45 to the current value, due to monthly values of 1.97 for August, 1.95 for September, 1.91 for October and 2.48 for November.

In its EAC, the Consortium assumed that the project would reach a goal PF of 1.15 within 6 months. This does not appear to be achievable. The Owner does not believe the assumed To-Go PF of 1.15 is achievable with the current CB&I organization, so the EACH Review Team recalculated the cost with a PF factor of 1.40 To-Go. This resulted in the Owner's EAC estimate increasing \$167,461,000 for Direct Craft labor. However, the Owner believes that CB&I should only be entitled to recovery of a reasonable PF, like the one assumed in the EAC (1.19). The Owner therefore does not think CB&I is entitled to any additional costs beyond their estimate of \$81,763,000.

#### 6.0 Schedule Impact

This EAC category is comprised of Target and Time & Materials increases for both CB&I and Westinghouse due to delays associated with Structural Modules and Westinghouse Design Engineering issues that result in new Commercial Operation Dates (COD's). The EAC Review Team recommends \$0 of increased entitlement for these Target and Time & Materials costs. The Owner has already agreed to increased costs for Structural Module Delays in proposed Change Order 16 and the associated interim Letter Agreement. Delays due to design engineering issues are the responsibility of Westinghouse.

##### CB&I Target

CB&I includes increased costs for Indirect Construction Labor, FNM Labor and associated FNM expenses for hotel load, Distributables and Fuel associated with Construction Equipment. All increased costs are due to the schedule delays associated with Structural Modules and Westinghouse Design Engineering issues. Based on CB&I's estimating methodology, the EAC Review Team believes these costs are inflated. An example of these inflated costs was the methodology used for distributables whereby CB&I did not look at what was previously spent on distributables but used a "forward looking" estimate of distributable expenses and may include some Firm Price distributables (Change Order #8) such as construction equipment and office supplies and equipment.

##### CB&I Time & Materials

CB&I includes increased costs for scaffolding craft and FNM labor and used a factor applied to Target scope indirect labor to determine the estimate for craft labor. CB&I also increased its estimate for one Field Non Manual Supervision Employee for hotel load associated with the Schedule Impact. CB&I increased its estimate for distributables for additional scaffolding materials. The EAC Review Team questioned CB&I as to why Scaffolding costs would increase due to the Schedule Impact of Structural Module Delays. The explanation given was not sufficient to support an increase in scaffolding costs related to a Schedule Delay.

##### Westinghouse Target

Westinghouse includes increased costs associated with its subcontract with CB&I Services for the Containment Vessel Fabrication and Assembly. The EAC Review Team evaluated the estimate documentation provided by CB&I Services to Westinghouse and found erroneous assumptions and mathematical errors. Westinghouse stated that CB&I Services has retracted



this estimate pending additional information and that a new estimate will not be given to the Owner for review with the EAC. Based on a review of the documents provided by CB&I Services to Westinghouse, CB&I Services' updated estimate includes charges for professional/supervision hotel load for 16 months for what CB&I Services considers a delay related to the Containment Vessel Fabrication and Assembly Schedule (mostly due to Westinghouse design issues/changes) plus the COD Schedule Impact Delay.

Westinghouse Time & Materials

Westinghouse includes increased costs for hotel load for professionals working on Licensing and Startup related to the Schedule Impact and new COD's.

7.0 Base Scope Refinement

This EAC category is comprised of Target and Time & Materials increases for Westinghouse due to refinement in Base Scope tasks. The increase in Target costs are associated with Westinghouse EPC Management for CB&I Construction Support and an increase in base scope associated with changes in the estimate from CB&I Services for Containment Vessel Fabrication and Assembly. The increase in Time & Materials costs are associated with additional base scope changes for Plant Startup and Testing netted against an estimated decrease for Import Duties associated with equipment.

Westinghouse Target

Increased cost estimates associated with EPC Management for CB&I Construction Support are due to Consortium's decision to apply a best talent/best athlete approach of using Westinghouse Management Personnel (an approximate staff of twelve managers) to supplement CB&I Construction Management. This base scope of work was never previously included in Westinghouse's Target work scope. The EAC Review Team recommends \$0 entitlement, since these costs are directly related to the incompetency of CB&I's construction management staff.

Increased cost estimates due to changes in the CB&I Services Subcontract for the Fabrication and Assembly of the Containment Vessel have been reviewed by the Owner and increased costs are entitled due to change orders between Westinghouse and CB&I Services for this Target Price Work Scope.

Westinghouse Time & Materials

Increased cost estimates associated with Plant Startup and Testing are due to Westinghouse's completion of a resource loaded Plant Startup and Test Schedule. The Owner's Operational Readiness Staff reviewed this schedule with Westinghouse and agrees that increased costs may be entitled. The EAC Review Team recommends that any additional costs in this base scope refinement be paid at Westinghouse Base Scope Labor Rates per EPC Table G-1 because this is not new work scope.

Increased cost estimates due to changes in licensing base scope is the result of an increased workload for Westinghouse to support its licensing efforts. Upon review of this estimate, the

EAC Review Team discovered that Westinghouse is attempting to recover Firm Price Licensing Work Scope through T&M Work pricing. The EPC Contract specifically states that the Consortium must provide the Owner with a "Licensed Plant" and much of this estimated additional work is included in Westinghouse's Firm Price Work Scope. Comments from the Owner's Licensing Manager include statements that there has only been one Owner directed LAR (Licensing Amendment Request) and all other E&DCR's and LAR's are due to Westinghouse changes/issues. The Owner has experienced increased costs due to additional licensing support staff and NRC fees to review Westinghouse's licensing changes. The EAC Review Team recommends \$0 entitlement for the increased costs above the original T&M Licensing Allowance and suggests seeking recovery from Westinghouse for the increase in Owner's costs associated with these changes.

Decreased cost estimates due to changes in Import Duties are directly associated with the decrease in duties associated with the Federal Government's Korean Free Trade Agreement. The EAC Review Team agrees that the Owner has already seen a decrease in import duties associated with equipment from South Korea. Although the Owner cannot verify Firm Price costs used to compute Import Duties it is assumed that this \$15 million decrease is a reasonable estimate and agrees to deduct from the EAC.

#### 8.0 Regulatory Driven

This column addresses Westinghouse costs associated with changes that are regulatory in nature as identified by the Consortium. The three scopes included are: Plant Startup & Testing, ITAAC Maintenance, and the Affordable Care Act. Both of the estimates for ITAAC Maintenance (\$2,623,837) and the Affordable Care Act (\$4,502,868) appear reasonable and the Owner believes the Consortium is entitled to these costs per regulatory changes enacted since the EPC Agreement was signed in 2008. For Plant Startup & Testing, the Consortium has identified \$30,000,000 in regulatory driven changes, which includes costs for CVAP, FPOT, F3POT and hotel load costs. The Owner does not believe that all of the costs included in this estimate are appropriately identified by the Consortium as new scope per regulatory changes. Costs that should not be contained in this estimate include any and all costs identified as Firm Price by the Owner such as Home Office Program Managers.

#### 9.0 Contingency/Risk Evaluation

##### CB&I Target

This EAC category is comprised of increased CB&I Target costs for Contingency based on 11% of the ETC (Estimate-To-Completion). The EAC Review Team recommends \$0 entitlement since CB&I's Contingency account has been restored for the inclusion of previous contingency usage in the "Quantity Changes" and "Other Miscellaneous Adjustments" categories of the EAC and this restores the Consortium to a Target Price Contingency of \$123M, which is approximately 6% of the remaining ETC.

#### 10.0 Other Misc. Adjustments

EAC Validation Report

Page 5

This column provides the projected cost impacts of identified changes that have not been incorporated into deviations by CB&I. In addition to cost changes due to design completion and refinement, included in this category are cost impacts due to other issues such as the delayed completion of the NI base mat due to design changes in the reinforcing bars. Cost Impacts such as this which are the responsibility of the Consortium are recognized, but are not included in the "entitlement" for CB&I. Some of the supporting information for these costs included interviews with CB&I personnel. CB&I was unable to substantiate the total costs for this EAC category.

11.0 Field Non Manual (FNM)

This column provides the cost estimate for additional FNM employees required to complete the project. CB&I provided details to support the cost included in the EAC. The Owner was able to verify the EAC amount, and determined it is reasonable only if CB&I conforms to the staffing plan as provided to the EAC Review Team. In addition to the staffing plan provided to the EAC Team, CB&I has provided a curve with limited data to indicate FNM staffing plan for site facilities and resource planning purposes. The FTE quantities reflected in the curve appear to be substantially higher than the detailed plan provided (20% +). Following the curve vs. the plan will result in a significant impact to the FNM cost.

Using the detail provided by CB&I, the Owner made additional adjustments to the estimated costs to complete the project by 1) applying actual pay rates and 2) extended the time employees were on-site to a more reasonable date (ex. Project Accounting). This analysis resulted in the base scope FNM estimate of \$179M (Excluding G&A and Profit to each Consortium party to be added later in the EAC template). CB&I would only be entitled to \$146M of these costs due to the fact that FNM costs have a factor of 1.70 added to them to cover administrative expenses. The Owner has been told that the actual factor experience by CB&I is approximately 1.3-1.4. Therefore, the Owner should only pay a 1.4 markup on any FNM expense incurred in excess of the amount originally budgeted.

12.0 Acceleration

This column contains an estimate for the increase in project cost due to acceleration to meet the December 2018/2019 SCDs. The Consortium has identified approximately \$171M for both Target and T&M costs. Of this \$171M, \$7.5M was incorrectly included as Target Price for FNM Living Allowances and/or Relocation expenses. These costs should be Firm Price. The majority of the acceleration costs are due to the introduction of a limited night shift of 340 Direct Craft, 100 Indirect Craft, and 60 FNM employees. There are also an additional 100 FNM added to the day shift to support the new night shift. The Owner does not believe the Consortium is entitled to any of the \$171M of acceleration costs as the acceleration is necessary due to Structural Module Delays.

13.0 Total EAC

Through various discussions with the Consortium the Owner understands the methodology used by the Consortium to estimate these costs. For the majority of these costs, a fairly

judgmental/subjective approach was used rather than a formulaic methodology. As such, the EAC Review Team would be challenged to reproduce these costs if requested. When viewed as a rough order of magnitude this estimate appears to be a reasonable attempt at establishing the minimum Target Price and T&M Price to be expected for completion of the project.

The EAC Review Team believes it has a reasonable understanding of the majority of the costs presented by the Consortium. However, understanding does not equate to agreement of the costs. There were several action items that the Owner did not receive complete answers for but deferred further discussion due to materiality.

## Message

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**From:** BROWNE, KENNETH JEROME [/O=SCANA/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=KB43183]  
**Sent:** 5/26/2015 3:13:55 PM  
**To:** KOCHEMS, KEVIN R [/O=SCANA/OU=Columbia/cn=Recipients/cn=KKOCHEMS]  
**Subject:** FW: ORS NND-Request-GCJ-4  
**Attachments:** ORS NND-Request-GCJ-4 2015-05-24.doc  
**Importance:** High

Kevin, I assume you are in the presence of Chad (and others) from whom we need advice on how to respond to this request. You know my feelings on this, and I know yours... Would it be possible to schedule a phone call to discuss this today? Skip is out all week, the response is due on Friday, and I need to know who is pulling this together...

Thanks, Ken

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**From:** SMITH, ABNEY A JR  
**Sent:** Monday, May 25, 2015 1:39 PM  
**To:** BROWNE, KENNETH JEROME; STEPHENS, MICHELE L  
**Subject:** Fw: ORS NND-Request-GCJ-4  
**Importance:** High

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

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**From:** BURGESS, KENNETH CHAD <[chad.burgess@scana.com](mailto:chad.burgess@scana.com)>  
**Sent:** Monday, May 25, 2015 12:11 PM  
**To:** KOCHEMS, KEVIN R; JOHNSON, SHIRLEY S; WALKER, CARLETTE L; WICKER, SHERI L; SMITH, ABNEY A JR  
**Subject:** FW: ORS NND-Request-GCJ-4

See attached.

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**From:** Gary Jones [<mailto:gary@jonespartners.net>]  
**Sent:** Sunday, May 24, 2015 8:03 PM  
**To:** BURGESS, KENNETH CHAD  
**Cc:** HINSON, BYRON W; [jnelson@regstaff.sc.gov](mailto:jnelson@regstaff.sc.gov); [shudson@regstaff.sc.gov](mailto:shudson@regstaff.sc.gov); Anthony James ([majames@regstaff.sc.gov](mailto:majames@regstaff.sc.gov))  
**Subject:** ORS NND-Request-GCJ-4  
**Importance:** High

\*\*\*This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from a trusted source.

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Dear Mr. Burgess,

I have attached the subject additional request for your action. Thank you.

*Gary C. Jones*  
Telephone: 773-665-7402  
Mobile: 312-402-2954  
[gary@jonespartners.net](mailto:gary@jonespartners.net)

**WALKER, CARLETTE L**

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**From:** ADDISON, JIMMY E  
**Sent:** Monday, July 27, 2015 4:09 PM  
**To:** WALKER, CARLETTE L  
**Subject:** RE: You and I need to talk by phone today if possible for a project brief

Will definitely call. Just got a lot of folks waiting on me to turn docs that have to go on board website asap.

---

**From:** WALKER, CARLETTE L  
**Sent:** Monday, July 27, 2015 1:27 PM  
**To:** ADDISON, JIMMY E  
**Subject:** RE: You and I need to talk by phone today if possible for a project brief

Understand, this is about your earnings call

Carlette Walker  
NND Finance  
(803) 217 -6323

[cwalker@scana.com](mailto:cwalker@scana.com)

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**From:** ADDISON, JIMMY E  
**Sent:** Monday, July 27, 2015 1:06 PM  
**To:** WALKER, CARLETTE L  
**Subject:** Re: You and I need to talk by phone today if possible for a project brief

Will call you later today. Swamped prepping for board and earnings call

Jimmy E Addison

On Jul 27, 2015, at 11:41 AM, WALKER, CARLETTE L <[CWALKER@scana.com](mailto:CWALKER@scana.com)> wrote:

Feel free to call my cell any time if I am out of my office. My cell is 206-1961

Carlette Walker  
NND Finance  
(803) 217 -6323

[cwalker@scana.com](mailto:cwalker@scana.com)

Carlette Walker's Notes

TIME LINE

2015  
 July 16 - PRM (Attendees: S. Johnson, Ken Browne, Marion Cherry, Adam Hoey, Jeff Archie, Alan Torres, Mark Cannon)  
 16 - Witness Prep (Attendees: CWalker, S Byrne, Ken, Skip Smith, Ron Jones, Kevin Kocherns, Chad Burgess, Byron Hinson, Kenny Jackson, Pelton Ziegler)  
 July 21 - Hearing 10:30 AM - start time  
 6:00 pm evening public hearing. all witnesses attended plus Jeff Archie, Marty Phalen  
 July 22 ✓ 10:30 Hearing - Steve on stand. Jeff Archie attends as does Marty Phalen. Both of these officers also convene with all of the other witnesses + attorneys at the Sheraton @ 9:00 earlier that same morning for resolution of any last minute issues that may have been identified. No mention is made that I am aware of about the NNI schedule impact rpt'd in PRM during previous week.  
 July 23 CW Return to Jenksville - Touches base w/ Shirley + Ken Browne to inquire about the Commercial Mtg + PRM held on 7/16/15. They share the details of the "special topic" delay impact of at least 6 months b/c of NNI inability to fabricate SB panels for U2 and even a worse impact for Unit 3 unless significant \$'s are invested. Consortium rpt'd that there was no opportunity to mitigate the delivery of the SB panels for U2. Shirley got Adams Notes (attached) to show me that he had documentation that proved Jeff Archie was in the Conf. Room when this schedule delay was announced. I spoke to Skip about the facts and he too had concerns about what was testified to, Jeff being in the hearing and knew of the delay

July 24 CW Jenksville

- CA03 - Unit # 2, Fabricate at Site
  - Module kits forecast complete in October 2015
- Shield Building - Newport News Industrial
  - Jefferson facility fabricating fixtures



CA20-26 at Lake Charles

Source: Adam Hoey of NND BF.

2015  
July 27

CW sent email to Jimmy Addison (CFO) that I needed to talk to him that day. Jimmy responded he was busy preparing for that weeks Board mtg and the Friday morning earnings release. I emailed back that what I needed to talk to him about dealt with the earnings release. Response: I'll call you this afternoon.

When Jimmy called me back I shared the sequence of events, who attended the PRM, who was at the witness prep mtg, and who went to the hearing by session, specifically when Jeff. I shared my concern about having a 2R. Exec + CNO knew of a significant schedule delay for 5 days prior to the hearing and not communicating w/ anyone this news and then being in the audience while the SCEG President testifying to the COD's as the achievable deliverable dates for both units. Jimmy was unusually quiet on the phone. I apologized for having to share this kind of info in the "15th" hour and he blew that off by insisting that I was doing my job. He said it looked like he had some work to do.

July 31 2015

Earnings Release Q2 2015 - No mention made of a potential increase of risk to delay due to fabrication of U2's SB wall panels (NNI subcontract to CB+I). COD's confirmed June 2019 & June 2020.

8/3/2015

Addison Staff mtg - directly following Jimmy's staff mtg, I lingered behind to ask Jimmy a follow-up on if he was able to identify a different fact that supported him not having to disclose a potential delay impact to U2 COD b/c of SB panel fab. Jimmy said he called Steve after he & I had talked on the 27th and Steve called Carl Churchman (the Consortium Director) and directly asked ~~if there was an~~ about the claim that there was no opportunity to mitigate the schedule impact to U2's this late in the fabrication sch. Carl supposedly told Steve there were still opportunities to mitigate the fab. of the panels for our SB panels.

- CA03 - Unit # 2, Fabricate at Site
  - Module kits forecast complete in October 2015
- Shield Building - Newport News Industrial
  - Jefferson facility fabricating fixtures



CA20-26 at Lake Charles

Source: Adam Hoxey of NND BF



PER Adam HOEY + KEN BROWN on 7/23 this was a hand out at the PRM



The hand written notes on this are Adam HOEY's notes taken during Josh's presentation to the audience of the PRM. PER Adam + Ken Brown, Alan Turner took Ron Jones' place as the owner

## Special Topic: Module Fabrication Status

Josh Skudlarick

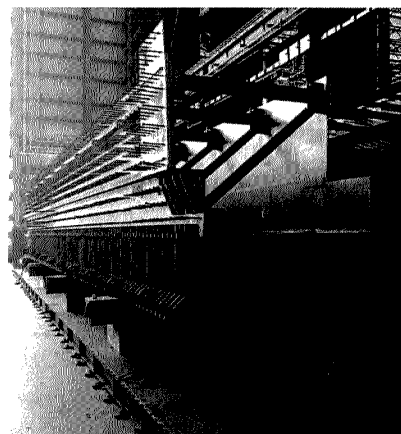
Alay - it is not for mitigation we wanted drop dead dates and now we have the dates have already passed.  
Doc - we'll have an offline meeting.  
Jeff - it's disappointing we are hearing about this in a PRM

Alay I have a level of frustration bc I keep hearing we can't get it right @ LC. OIW has been at substantial cost anywhere in some modules for 6 months. Continue to reinvent the wheel. It isn't quality, it's an administrative thing.  
Carl - we'll come back with a plan.

### Module Fabrication Status

Josh Skudlarick

- Overview
  - Shipping Status
  - Hardware Quality Improvements
  - Doc Packages
- CA01 - Unit # 3, Toshiba & IHI
  - Delivery forecast complete in June 2016
- CA20 - Unit # 3, OIW & Lake Charles
  - Lake Charles forecast to complete in August 2015
  - OIW forecast to complete in October 2015
- CA03 - Unit # 2, Fabricate at Site
  - Module kits forecast complete in October 2015
- Shield Building - Newport News Industrial
  - Jefferson facility fabricating fixtures



CA20-26 at Lake Charles

Jeff - Module is over will prevent you from making plant completion dates.



Month End June 2015

Proprietary and Confidential

42

Source: Adam Hoey of NND BF

**Monthly Project Status Review Meeting Agenda  
July 16, 2015**

**Location:** V.C. Summer New Nuclear Office Building (NNOB), Conference Room 201

**I. General Session / Special Topics**

07:30 AM – 08:00 AM	(30 min)	Introductory Comments/Topics - Introduction of New Team Members/Guests – Project Directors - Nuclear Safety Topic – Jason Brown - Review/Update of Overdue Action Items – Jason Brown - Introduction of High Level Focus Areas – Project Directors
08:00 AM – 08:15 AM	(15 min)	Industrial Safety Performance – Bill Wood
08:15 AM – 08:30 AM	(15 min)	Quality Assurance Program Brief – David Jantosik / David Hunt
08:30 AM – 09:00 AM	(30 min)	Special Topic: CB&I Laurens Stop Work Order Status
09:00 PM – 09:10 PM	(10 min)	BREAK
09:10 AM – 09:15 AM	(15 min)	Problem & Identification Resolution Program Brief – Jim Comer
09:15 AM – 09:25 AM	(10 min)	Special Topic: Module Fabrication Status – Josh Skudlarick

Per Adam Hoey  
of NND this is  
when the owner  
was informed of  
the DP panel  
Fab delay  
that could  
not be  
mitigated  
for Unit 2

**II. Schedule Critical Paths Review**

09:25 AM – 09:35 AM	(10 min)	Review of Unit 2 Project Milestone Schedule – Terry Elam / Lisa Cazalet
09:35 AM – 09:55 AM	(20 min)	Construction Inside Containment: Lift/Set Structural Module CA01
09:55 AM – 10:15 AM	(20 min)	Shield Building Construction: Placement of First Shield Building Panel
10:05 AM – 10:35 AM	(20 min)	Aux/Annex Building Construction: Annex Building Basemat
10:35 AM – 10:45 AM	(10 min)	BREAK
10:45 AM – 11:05 AM	(20 min)	Turbine Building Construction: First Bay Basemat
11:05 AM – 11:25 AM	(20 min)	Licensed Operators for Unit 2 Fuel Load
11:25 AM – 11:35 AM	(10 min)	Review of Unit 3 Project Milestone Schedule – Terry Elam / Lisa Cazalet
11:35 AM – 11:50 AM	(15 min)	Unit 3 Highlights / Look Ahead

**III. Metrics Review**

11:50 AM – 11:55 AM	(5 min)	Engineering Metrics – John Robinson / Adam Scheider
11:55 AM – 12:00 PM	(5 min)	Licensing Metrics – Brian McIntyre
12:00 PM – 12:05 PM	(5 min)	Procurement Metrics – Danny Williams
12:05 PM – 12:10 PM	(5 min)	Construction Metrics – Bill Wood

**V. Conclusion**

12:10 PM – 12:20 PM	(10 min)	Wrap-up – Project Directors - Includes second review of High Level Focus Areas
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**Next Project Review:** August 20, 2015  
V.C. Summer New Nuclear Office Building (NNOB), Conference Room 201

**To:** Zeigler, Belton[Belton.Zeigler@wcsr.com]  
**Cc:** BYNUM, ALVIS J JR[ABYNUM@scana.com]  
**From:** SMITH, ABNEY A JR  
**Sent:** Wed 10/28/2015 4:46:26 PM  
**Subject:** RE: Settlement with WEC

I believe that's the case. I copied Al for his confirmation

Abney A. (Skip) Smith  
 Manager, Business & Finance  
 New Nuclear Deployment  
 VC Summer Nuclear Station  
 SCE&G  
 803-941-9816 (O)  
 803-530-5532 (C)

**From:** Zeigler, Belton [mailto:Belton.Zeigler@wcsr.com]  
**Sent:** Wednesday, October 28, 2015 2:43 PM  
**To:** SMITH, ABNEY A JR  
**Subject:** RE: Settlement with WEC

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If it is attorney client privilege, then that is also a good reason not to mention it.

**BELTON T. ZEIGLER**  
 PARTNER

**WOMBLE CARLYLE SANDRIDGE & RICE, LLP**  
 1727 Hampton Street | Columbia, SC 29201  
 T 803 454 7720 | [belton.zeigler@wcsr.com](mailto:belton.zeigler@wcsr.com)  
 Firm Website | [www.wcsr.com](http://www.wcsr.com)

**From:** SMITH, ABNEY A JR [mailto:SASMITH@scana.com]  
**Sent:** Wednesday, October 28, 2015 2:35 PM  
**To:** Zeigler, Belton  
**Cc:** BURGESS, KENNETH CHAD; HINSON, BYRON W  
**Subject:** RE: Settlement with WEC

We and Santee contracted the study but through our outside counsel, George Wenick. Al Bynum can give you insight. I would prefer not to mention it

Abney A. (Skip) Smith  
 Manager, Business & Finance  
 New Nuclear Deployment  
 VC Summer Nuclear Station

SCE&G  
803-941-9816 (O)  
803-530-5532 (C)

---

**From:** Zeigler, Belton [<mailto:Belton.Zeigler@wcsr.com>]  
**Sent:** Wednesday, October 28, 2015 2:31 PM  
**To:** SMITH, ABNEY A JR  
**Cc:** BURGESS, KENNETH CHAD; HINSON, BYRON W  
**Subject:** RE: Settlement with WEC

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If it is not our study, then I say we don't mention it.

**BELTON T. ZEIGLER**  
PARTNER

**WOMBLE CARLYLE SANDRIDGE & RICE, LLP**  
1727 Hampton Street | Columbia, SC 29201  
T 803 454 7720 | [belton.zeigler@wcsr.com](mailto:belton.zeigler@wcsr.com)  
Firm Website | [www.wcsr.com](http://www.wcsr.com)

---

**From:** SMITH, ABNEY A JR [<mailto:SASMITH@scana.com>]  
**Sent:** Wednesday, October 28, 2015 2:30 PM  
**To:** Zeigler, Belton  
**Cc:** BURGESS, KENNETH CHAD; HINSON, BYRON W  
**Subject:** RE: Settlement with WEC

This applies to Bechtel who has just completed an analysis of our project and will likely stay involved. Santee has been pushing this. We'll probably never see a written report of the Bechtel study and have not been briefed by senior management on their findings. We are paying a 100% price tag of 1M for this study. Not sure how to address in BLRA. ORS is aware. You may want to check with Chad and Byron whom I copied.

Abney A. (Skip) Smith  
Manager, Business & Finance  
New Nuclear Deployment  
VC Summer Nuclear Station  
SCE&G  
803-941-9816 (O)  
803-530-5532 (C)

---

**From:** Zeigler, Belton [<mailto:Belton.Zeigler@wcsr.com>]  
**Sent:** Wednesday, October 28, 2015 2:18 PM  
**To:** SMITH, ABNEY A JR  
**Subject:** Settlement with WEC

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I noticed discussion of Owner's Consultant. Has a consultant been hired? Is this something we need to disclose now, or should we wait? (I think it is a positive and sounds best as part of a general restructuring of relationships, not a follow on later.)

Belton

**BELTON T. ZEIGLER**  
PARTNER

**WOMBLE CARLYLE SANDRIDGE & RICE, LLP**  
1727 Hampton Street | Columbia, SC 29201  
T 803 454 7720 | [belton.zeigler@wcsr.com](mailto:belton.zeigler@wcsr.com)  
Firm Website | [www.wcsr.com](http://www.wcsr.com)

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**From:** TORRES, ALAN D  
**Sent:** Thursday, November 5, 2015 7:37 AM  
**To:** JONES, RONALD A  
**Subject:** FW: Construction Performance Package WE 11/1/15  
**Attachments:** WE 11-1-15 Construction Performance Report.pptx

Pf numbers are awful

**From:** Gholson, Cynthia H [mailto:cynthia.gholson@cbi.com]  
**Sent:** Wednesday, November 4, 2015 11:55 AM  
**To:** Richards, Lydia X (Jenkinsville) <lydia.x.richards@cbi.com>; Kenneth W. Hollenbach <ken.hollenbach@cbi.com>; Hughes, Joseph P <joseph.hughes@cbi.com>; Hjelseth, Joel (Westinghouse) <hjelseje@westinghouse.com>; Magnarelli, Dan (Westinghouse) <magnardl@westinghouse.com>; Gould, Peter (Westinghouse) <gouldpa@westinghouse.com>; Young, Pat (Westinghouse) <youngpa@westinghouse.com>; Elam, Terry <terry.elam@cbi.com>; Lemieux, Fran <fran.lemieux@cbi.com>; McClung, Bradley <bradley.mcclung@cbi.com>; Glover, Mark <mark.glover@cbi.com>; 'cazalela@westinghouse.com'; Dunbar, Roger K <roger.dunbar@cbi.com>; Astl, Werner <werner.astl@cbi.com>; Tate, William <william.tate@cbi.com>; Burk, Sean M <sean.burk@cbi.com>; Arostegui, Joseph <joseph.arostegui@cbi.com>; Smith, Jarred <jarred.smith@cbi.com>; Khan, Arshad <arshad.khan@cbi.com>; Dahlberg, Chris <chris.dahlberg@cbi.com>; Lauerman, Brandon <brandon.lauerman@cbi.com>; Dykstra, Fred <fred.dykstra@cbi.com>; Anderson, Cory <cory.anderson@cbi.com>; Drewett, George <george.drewett@cbi.com>; Chapman, Robert D <robert.chapman@cbi.com>; Anderson, Michael V <michael.v.anderson@cbi.com>; Holland, Scotty <scotty.holland@cbi.com>; Evenson, Ryan <ryan.evenson@cbi.com>; Sedey, Raymond <raymond.sedey@cbi.com>; Krebs, Dan (Westinghouse) <krebsdp@westinghouse.com>; Bland, James <james.bland@cbi.com>; Voci, Eugene K <eugene.voci@cbi.com>; Hobbs, Brian <brian.hobbs@cbi.com>; Wood, Bill <bill.wood@cbi.com>; Macecevic, Bill (Westinghouse) <macecewa@westinghouse.com>; Smith, William <william.smith1@cbi.com>; Adams, Patricia <patricia.x.adams@cbi.com>; Dailey, Arthur <arthur.dailey@cbi.com>; Herbert, Erle (Westinghouse) <herberref@westinghouse.com>; Young, Pat (Westinghouse) <youngpa@westinghouse.com>; Oakley, Mark (Westinghouse) <oakleyma@westinghouse.com>; Robinson, John (Westinghouse) <robinsjl@westinghouse.com>; Anthony, George <george.anthony@cbi.com>; Boone, Anthony (Westinghouse) <booneaj@westinghouse.com>; JONES, RONALD A <RONALD.JONES@scana.com>; TORRES, ALAN D <ATORRES@scana.com>; YOUNG, KYLE MATTHEW <KYLE.YOUNG@scana.com>; 'Hyde, JoAnne' <hydej@westinghouse.com>; WALKER, CARLETTE L <CWALKER@scana.com>; Falso, Tom (Westinghouse) <falsota@westinghouse.com>; Underwood, Robert W. <robert.underwood@cbi.com>; Coffey, Stacey <stacey.coffey@cbi.com>; Ervin, Tony <tony.ervin@cbi.com>; Peters, Jenna L. <jenna.peters@cbi.com>; HYDRICK, BERNARD JR <BHYDRICK@scana.com>; Tibbetts, Aaron <aaron.tibbetts@cbi.com>; Brown, Jason (Westinghouse) <brownja@westinghouse.com>; Fleetwood, Andrew S <andrew.fleetwood@cbi.com>; Keane, Brian <brian.keane@cbi.com>; Sauer, Thomas <thomas.sauer@cbi.com>; Miner, Antonio <antonio.miner@cbi.com>; Stoddard, Timothy M <timothy.stoddard@cbi.com>; Quinney, Robert <robert.quinney@cbi.com>; Rick J. Easterling <easterr@westinghouse.com>; CANTWELL, RICHARD <RICHARD.CANTWELL@scana.com>; Hamm, Nathan <nathan.hamm@cbi.com>; Senterfeit, Forrest H <forrest.senterfeit@cbi.com>; Oloughlin, Daniel <daniel.oloughlin@cbi.com>; Scheider, Adam K. <adam.scheider@cbi.com>; Martin, Donald T. <donald.martin@cbi.com>; Elam, Shea <shea.elam@cbi.com>; Hall, Matthew <matthew.hall2@cbi.com>; Clark, Ryan O. <ryan.clark@cbi.com>; Johnson, Cecil <cecil.johnson@cbi.com>; Gholson, David G <david.gholson@cbi.com>  
**Cc:** Cothorn, John <john.cothorn@cbi.com>; Yelisseyev, John <john.yelisseyev@cbi.com>; Lintelman, Robert <robert.lintelman@cbi.com>; Russell, Rebecca <rebecca.russell@cbi.com>; Harder, Christine E <christine.harder@cbi.com>; Glover, Chad <chad.glover@cbi.com>; Neese, Terry <terry.neese@cbi.com>; Manning, Jeffery <jeffery.manning@cbi.com>; Chmielewski, Richard <rich.chmielewski@cbi.com>; Martin, Philip <philip.martin@cbi.com>; Foster, James M <james.foster@cbi.com>; McManus, Kaitlan <kaitlan.mcmanus@cbi.com>; Abel, Austin <austin.abel@cbi.com>; Brandon, Rashad A



<x.rashad.brandon@cbi.com>; McClellan, Thomas B. <blake.mcclellan@cbi.com>; Gholson, Brandon <brandon.gholson@cbi.com>; Wallace, Stephen <stephen.wallace@cbi.com>; Trone, Joshua L <joshua.trone@cbi.com>; Gainey, Jason T. <jason.gainey@cbi.com>; Rampon, Jeffery A <jeffery.rampon@cbi.com>; DeLaCruz Jr., Richard <x.richard.delacruz@cbi.com>; Smith, Heather R <heather.smith@cbi.com>

**Subject:** Construction Performance Package WE 11/1/15

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Good morning,  
Construction Performance Package WE 11/1/15 is attached.

Please let Phil Martin know if you have any questions.



Cynthia H Gholson  
Project Controls Tech II  
Power – VC Summer Units 2&3, Bldg 1  
Tel: + 803-575-3175  
Cell: + 704-747-3912  
[cynthia.gholson@cbi.com](mailto:cynthia.gholson@cbi.com)

CB&I  
14368 SC Highway 213  
Jenkinsville, SC 29065  
USA  
[www.CBI.com](http://www.CBI.com)



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---

**From:** Wenick, George </O=SMITH, CURRIE AND HANCOCK/OU=SCH/CN=RECIPIENTS/CN=GDW>  
**To:** Daw, Martyn  
**Sent:** 11/12/2015 5:09:51 PM  
**Subject:** Re: Assessment - PSA

Martyn,

Please confirm receipt of the message below and that I will be the only one to receive a report for now.

George

Sent from my iPhone

On Nov 12, 2015, at 11:57 AM, Wenick, George <[gdwenick@smithcurrie.com](mailto:gdwenick@smithcurrie.com)> wrote:

Martyn,

Please hold the final report. That is extremely important!

I have been instructed to receive the draft and review it before it is final. We may decide that we do not want a final. Call me if you have any questions about this. I am at the airport on my way to NYC. My cell number is 404-274-8047.

George

Sent from my iPhone

On Nov 12, 2015, at 11:45 AM, Daw, Martyn <[mndaw@bechtel.com](mailto:mndaw@bechtel.com)> wrote:

George,

Kevin Marsh suggested that we send this draft report to you. We intend to send the final report to Kevin Marsh and Lonnie Carter by cob tomorrow (Friday).

We believe the final report will constitute receipt of the report by the Owners and so the one week period for the Owners confirming the Services have been completed will start from then.

Please let me know if you have any questions

cheers

Martyn

<Draft Nov 12 2015 VC Summer U...Project Assessment Report.pdf>

---

**From:** Wenick, George </O=SMITH, CURRIE AND HANCOCK/OU=SCH/CN=RECIPIENTS/CN=GDW>  
**To:** Purswell, Marie  
**CC:** Farley, Michael; Humphries, James; Daw, Martyn  
**Sent:** 11/12/2015 9:01:10 PM  
**Subject:** Re: 240-344-3197 - Martyn's cell

I heard from Martyn. Everything is fine.

Sent from my iPhone

> On Nov 12, 2015, at 1:41 PM, Purswell, Marie <mapurswe@Bechtel.com> wrote:

>

> Mr. Wenick said he needs to talk to someone when he lands in NY at 4 pm.

>

> Marie

>

> -----Original Message-----

> From: Wenick, George [mailto:gdwenick@smithcurrie.com]

> Sent: Thursday, November 12, 2015 1:30 PM

> To: Purswell, Marie <mapurswe@Bechtel.com>

> Subject: Re: 240-344-3197 - Martyn's cell

> Thank you. Martyn did not answer. It is of the utmost importance that I speak with him or someone else at Bechtel today. I am on an plane that is scheduled to land in NYC at 4:00. Please reach out to Martyn or someone else on the Bechtel team that can speak with when I land.

>

> George

>

> Sent from my iPhone

>

> On Nov 12, 2015, at 1:22 PM, Purswell, Marie <mapurswe@Bechtel.com<mailto:mapurswe@bechtel.com>> wrote:

>

>

> Best Regards,

> Marie Purswell

> Bechtel National, Inc. | Legal and Risk Management | Ethics & Compliance |

> 12011 Sunset Hills Road |RO2-C632| Ste #110 | Reston, VA 20190

> Tel: 1-703-429-6309 | Fax: 1-703-429-6046 | mapurswe@bechtel.com<mailto:mapurswe@bechtel.com>

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> <mime-attachment>